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FOREIGN PRODUCTION, TRADE, AND GOVERNMENT AID IN THE RAISIN AND CURRANT INDUSTRY

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FOREIGN PRODUCTION, TRADE, AND GOVERNMENT AID IN THE RAISIN AND CURRANT INDUSTRY^{1,2}

WALTER BAUER³

INTRODUCTION

The rapid growth of California raisin exports since the World War has greatly increased the dependence of the industry upon foreign markets and has brought a substantial part of the California sales into direct competition with raisin and currant supplies from other producing countries of the world.⁴ Exports during the five years before the War averaged only about 13 per cent of the California raisin crop. After the War they increased rapidly until, with very large supplies and extremely low prices, they reached a peak in 1928 of 119,000 tons (sweat-box basis), or approximately 41 per cent of California raisin shipments for the crop year. It appears that California may now normally expect to be dependent on foreign markets to absorb approximately 30 per cent of the state raisin output.

The importance of keeping abreast of current and prospective developments in the economic situation of the raisin industry of foreign countries has, therefore, been greatly accentuated since the World War by the direct and keen competition that California's greatly increased raisin exports have been forced to meet in foreign markets from raisin and currant supplies from other producing countries. The failure of the

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⁴ Foreign competition in the American market has been checked effectively by the tariff and by the inability of foreign sources of supply to compete with the highly organized industry in California. In 1920, for instance, imports of raisins and other dried grapes into the United States amounted to 46,039,000 pounds and imports of currants to 55,832,000 pounds. The corresponding figures for 1930 were 1,834,000 pounds of raisins and other dried grapes, and 8,716,000 pounds of currants. The rate of decrease during these ten years was much greater in the case of raisins and other dried grapes than in the case of currants.

raisin and currant industries of the world to market all of their output in recent years, even at prices ruinously low to many growers, indicates that overproduction exists and has led to a particularly keen competitive struggle between producing countries. For many years currant production has continuously been greater than the amount world markets have taken for eating purposes, and during the last ten years raisin production has frequently been in excess of what consumers have bought even at very low prices.

Excessive raisin supplies are exceptionally depressing upon prices because of the very inelastic demand. Such drastic price cuts have to be made to induce any substantial increase in raisin consumption in the United States that excessively large crops return smaller incomes to growers than small crops.⁵ Naturally, a situation of overproduction of a crop with such an inelastic demand has led to organized attempts in several producing countries to remove entirely surpluses from world markets and to control prices artificially. The most noteworthy experiments along this line are those of the Central Currant Office of Greece, the Australian Dried Fruit Control Board, and the California Grape Control Board and the Raisin Pool.⁶ Other methods have also been used by governments and by growers and packers in a number of countries in attempting to remedy the economic difficulties of their raisin and currant industries.

OBJECT OF STUDY

The increasing importance of government aid to the raisin and currant industries of foreign countries has made it desirable to study the nature, method, and results of such government measures in order properly to appraise the influence that they have had and that they are likely to have upon world raisin production and trade. In this study, however, it has been found practically impossible to secure all of the facts necessary to arrive at precise conclusions regarding the true economic effects of government assistance on the raisin and currant industries of the countries concerned, and, through the medium of the world raisin market, on the California raisin industry itself.

In the first place, the available data on the subject proved to be insufficient to permit of conclusions without many reservations. Inadequate data leave many vital questions only partially answered regard-

⁵ Shear, S. W. and R. M. Howe. Factors affecting California raisin sales and prices, 1922-1929. *Hilgardia* 6:78-79. 1931.

⁶ For a discussion of the California raisin control plan and its operation through May, 1931, see: Shear, S. W. The California grape control plan. *Amer. Coöperation*, 1931. 1:229-247. 1931.

ing present and future acreage, production, markets, and demand. Of necessity, the data used in the study have been very largely drawn from published literature supplemented, in some instances, by facts secured by conference or by correspondence with persons familiar with the raisin and currant industries of some of the countries involved. Additional and somewhat more satisfactory information presumably could have been secured by travel and observation in the countries involved and by conference with the persons in those countries best informed regarding the raisin and currant industries, but such a personal survey was out of the question.

Secondly, the complications in the international raisin market are of such recent date that many of the government relief measures of recent years have not yet exercised their potential influence, especially since they are still largely experimental.

In the third place, the development of the world's raisin and currant industry is intimately associated with the economic outlook and prosperity of the world in general. Raisins and currants are largely a luxury foodstuff. Their consumption is affected by such factors as purchasing power, patriotic loyalty in economic matters, economic reciprocity between purchasing and selling countries, and the fact that some thickly populated and potential consuming regions have not yet been exploited as markets.

Finally, the human factor gains special importance when one takes into consideration the possible psychological effects of skillful advertising and aggressive salesmanship, by which consuming habits and preferences may be vitally changed. This brings into the picture the possible competition of fresh and canned fruit which may become more serious, if this type of consumption is strongly pushed forward.

In general, the factors that determine the demand for raisins and currants in foreign markets are so varied and complicated that they can only be referred to superficially in a study such as this, which is to be confined mainly to an investigation into the development of the raisin and currant industry through government encouragement and support. The data available do not permit precise conclusions concerning the probable effects of government interference abroad on the California raisin industry nor what should be done by the California grower to safeguard his interests in view of the potential competitive strength of foreign producing regions. However, the facts presented on foreign developments should give the California raisin industry a clearer picture than has previously been available of what it may have to contend with in export markets from foreign raisins in the future. Such a study of

the measures that foreign governments have used to help foster their own raisin and currant industries may also suggest whether similar experiments with the California raisin industry would appear to be feasible or not.

TABLE 1
WORLD RAISIN AND CURRANT PRODUCTION BY COUNTRIES, AVERAGES
1909-1913, 1921-1925, AND 1926-1930

Country	1909-1913	1921-1925	1926-1930	Per cent of total		
				1909-1913	1921-1925	1926-1930
	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
Currants:						
Greece.....	174,570	142,936	147,646	97.7	92.4	90.3
Australia.....	4,045*	11,714	15,659	2.3	7.6	9.6
Union of South Africa.....	6†	79	164	‡	‡	0.1
Total currants.....	178,621	154,729	163,469	100.0	100.0	100.0
Raisins:						
California (United States).....	71,700	208,400	244,940	28.4	55.9	54.9
Australia.....	6,753*	21,671	44,910	2.7	5.8	10.1
Smyrna (Turkey).....	52,580	41,280	47,980	20.8	11.1	10.7
Spain (exports§).....	26,170	21,523	21,365	10.4	5.8	4.8
Persia (exports¶).....	32,960**	19,961	19,563	13.0	5.3	4.4
Greece (including Crete).....	18,000††	21,000	21,660	7.1	5.6	4.8
Cyprus (exports).....	3,416	3,011	5,058	1.3	0.8	1.1
Union of South Africa.....	1,257†	5,622	4,918	0.5	1.5	1.1
Subtotal.....	212,836	342,468	410,394	84.2	91.8	91.9
Russia.....	30,000††	20,000††	25,000††	11.9	5.3	5.6
Italy.....	8,000††	7,000††	6,000††	3.2	1.9	1.3
Argentina.....	300††	1,500	3,000	0.1	0.4	0.7
Chile.....	729	1,000††	1,000	0.3	0.3	0.2
Palestine and Transjor- dania.....	750††	1,000††	1,120††	0.3	0.3	0.3
Total raisins.....	252,615	372,968	446,514	100.0	100.0	100.0
Total raisins and currants....	431,236	527,697	609,983

* Victoria and South Australia only.

† 1911 only.

‡ Less than one-tenth of one per cent.

§ Exports from the Valencia-Alicante and Málaga districts. Data for 1920-1930 include shipments by sea to Spanish markets, but it is not known whether or not such shipments are included in the 1909-1913 average.

|| Average, 1909-1912.

¶ For years beginning March 22 (for all other figures in this table calendar years are used).

** Average, 1911-1913.

†† Estimated.

Sources of data:

Currants: 1909-1913: for Greece from table 5; Australia from table 41; Union of South Africa from table 48.

1921-1930: from table 2.

Raisins: 1909-1913: for California from Shear, S. W., and H. F. Gould. Economic status of the grape industry. California Agr. Exp. Sta. Bul. 429: 124. 1927; Australia from table 41; Smyrna from table 18; Spain from table 28; Persia from table 35; Greece from table 16; Cyprus from table 23; Union of South Africa from table 48.

All data 1921-1930: from table 2, except as indicated below.

All data for Russia, Italy, Argentina, Chile, Palestine, and Transjordan are estimates based upon best data available from official sources and trade information.

TABLE 2
WORLD RAISIN AND CURRENT PRODUCTION BY CHIEF COUNTRIES,
YEARS HARVESTED, 1920-1932[¶]

Country	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932*
Currents:	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>
Greece.....	145,475	129,605	128,547	105,800	178,802	171,925	148,914	142,618	155,900	143,400	147,400	73,700	144,000
Australia.....	8,042	7,647	9,080	11,755	17,040	13,050	13,704	14,289	7,950	21,160	21,192	19,411	19,094
Union of South Africa.....	34	39	60	90	107	100	91	109	96	216	308	225	225
Total currents.....	153,551	137,291	137,687	117,645	195,949	185,075	162,709	157,016	163,946	164,776	168,900	93,336	163,319
Raisins:													
California (United States)	177,000	145,000	237,000	290,000	170,000	200,000	272,000	285,000	261,000	215,000	191,700	169,000	262,000
Australia.....	15,726	9,418	15,121	20,876	33,063	29,876	27,751	48,722	28,791	59,388	59,898	36,761	45,765
Smyrna (Turkey)	20,300	37,400	41,200	40,400	54,300	33,100	39,100	52,900	50,200	56,200	41,500	31,000	70,000
Spain (exports) [†]	33,000 [‡]	19,313	20,510	17,950	23,613	26,229	20,650	25,227	22,673	20,701	17,574	15,945	20,300
Persia (exports) 	—\$	5,965	11,088	21,304	30,774	30,672	14,458	26,226	21,876	17,881	17,374	29,139	20,000
Greece (including Crete).....	13,000	22,000	21,000	18,000	22,500	21,500	20,000	22,300	22,500	22,000	21,500	21,500	27,000
Cyprus (exports).....	2,033	1,983	2,020	2,113	5,137	3,803	3,700	4,925	5,453	5,437	5,776	2,989	3,492
Union of South Africa.....	2,586	4,197	7,820	5,910	5,523	4,660	4,564	5,146	5,414	4,964	4,502	4,650	4,650
Total raisins.....	—	245,276	355,759	416,553	344,910	349,840	402,223	470,446	417,907	401,571	359,824	310,984	453,207
Total raisins and currents.....	—	382,567	493,446	534,198	540,859	534,915	564,932	627,462	581,853	566,347	528,724	404,320	616,526

* Preliminary data, subject to revision.

[†] Exports from the Valencia-Alicante and Málaga districts for approximate crop years. Include shipments by sea to Spanish markets.

[‡] Estimated.

[§] Dashes indicate data not available.

^{||} For years beginning March 22. (For all other figures calendar years are used.)
[¶] Preliminary 1933 production estimates for most of the countries included in this table are given in tables in sections dealing with individual countries.

Sources of data:

Currents: Data for Greece from table 5; Australia from table 41, except for 1928-1932 which are from the Australian Dried Fruits Association; Union of South Africa from table 48.

Raisins: Data for California (which exclude dried grapes) compiled from California Crop Reports; Australia from table 41, except for 1928-1932, which are from Australian Dried Fruits Association; Smyrna from table 18; Spain from tables 33 and 34, except for 1920, and exports to Spanish markets for 1921 which are estimated from best data available; Greece from table 16; Persia from table 35; Cyprus from tables 23 and 24; Union of South Africa from table 48.

TREND OF WORLD PRODUCTION AND CONSUMPTION

Production.—During the last twenty years world production of raisins has increased greatly while currant production has declined slightly.

TABLE 3

NET RAISIN IMPORTS INTO PRINCIPAL IMPORTING COUNTRIES, CALENDAR YEAR
AVERAGES, 1909–1913, 1921–1925, AND 1926–1930

Importing countries	1909–1913	1921–1925	1926–1930
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
United Kingdom.....	78,510*	109,443*	154,729
Germany.....	39,900	27,009	69,909
Canada.....	22,331	34,537	40,662
France§.....	17,294	9,071	12,634
Netherlands.....	10,598	13,292	23,123
Belgium.....	5,132	7,080	11,033
New Zealand.....	4,678	6,732	9,016
Irish Free State.....	—*†	4,648‡	6,011
Denmark.....	3,635	3,717	5,447
Sweden.....	3,624	3,075	4,636
Norway.....	3,091	3,361	4,221
Finland§.....	2,879	3,328	4,772
Italy.....	2,404	1,937	5,199
British India§ 	2,260¶	2,152	1,994
Switzerland§.....	2,078	1,751	2,641
Philippine Islands.....	441**	466	692
Subtotal.....	198,954	231,599	356,719
Poland.....	—†	5,748‡	2,100
Egypt.....	—	4,087	3,805
Austria.....	—	3,931††	7,889
China§.....	—	3,826‡‡	5,171
Czechoslovakia.....	—	3,732	6,434
Jugoslavia.....	—	163	2,037
Hungary§.....	—	272‡	920
Total.....	—	253,358	385,075

* The Irish Free State is included with the United Kingdom previous to April 1, 1923.

† Dashes indicate data not available.

‡ Two-year average, 1924–1925.

§ Includes currants.

|| Year beginning April 1. Sea-borne trade only.

¶ Two-year average, 1912–13 and 1913–14.

** Year beginning July 1. Two-year average 1909–10 and 1910–11.

†† Four-year average.

‡‡ Three-year average, 1923–1925.

Sources of data:

Compiled from official sources by the Foreign Agricultural Service of the United States Department of Agriculture. Data for 1930 in some instances may be preliminary and therefore the 1926–1930 average may be subject to minor changes.

Tables 1 and 2 show that the big decline in currant production has taken place in Greece, while the rapid expansion of the raisin output has occurred in Australia and California. The combined total of world production of raisins and currants has grown from a pre-war average

(1909–1913) of roughly 430,000 tons⁷ to over 600,000 tons in recent years. This increase of approximately 170,000 tons, or about 40 per cent, has been due entirely to the great expansion of raisin production which grew from an average of about 250,000 tons to an average of over 445,000 tons in the years 1926–1930. On the other hand, currant production de-

TABLE 4

NET CURRANT IMPORTS INTO PRINCIPAL IMPORTING COUNTRIES, CALENDAR YEAR AVERAGES, 1909–1913, 1921–1925, AND 1926–1930

Importing countries	1909–1913	1921–1925	1926–1930
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
United Kingdom.....	137,625*	129,997*	126,716
Germany.....	36,342	12,678	21,849
Netherlands.....	26,304	24,798	23,075
United States.....	31,916†	25,704	10,869
Canada.....	11,590	5,762	5,208
Irish Free State.....	—*‡	7,789§	7,420
New Zealand.....	2,621	1,385	1,311
Union of South Africa.....	1,851	864	967
Denmark.....	742	660	570
Poland.....	—‡	258	1,211
Norway.....	305	364	277
Sweden.....	232	277	340
Czechoslovakia.....	—	88	167
Egypt.....	—	55	58
Total.....	249,528¶	210,679	200,038

* The Irish Free State is included with the United Kingdom previous to April 1, 1923.

† Year beginning July 1.

‡ Dashes indicate data not available.

§ Two-year average, 1924–1925.

|| Includes raisins.

¶ Excludes imports from Poland, Czechoslovakia, and Egypt, for which no data are available.

Sources of data:

Compiled from official sources by the Foreign Agricultural Service of the U. S. Department of Agriculture. Data for 1930 in some instances may be preliminary and therefore the 1926–1930 averages may be subject to minor changes.

clined from a little less than 180,000 tons to slightly over 160,000 tons during the same period.

Expansion of the California raisin output from a pre-war average of about 70,000 tons to a recent average of about 245,000 tons has accounted for much of the increase in world raisin supplies. Outside of California the greatest growth has taken place in Australia, largely as a result of post-war government measures developing and colonizing irrigated areas well adapted to raisin industry. From less than 7,000 tons, in pre-war years, the Australian raisin output has risen to an average of 45,000 tons in recent years. Somewhat offsetting the influence of the phenomenal growth of California and Australian raisin production

⁷ All tonnage data in this bulletin are given in short tons unless otherwise stated.

since 1910 has been the slight decline in the raisin output of Smyrna and Persia. Smyrna production has declined from about 53,000 tons in pre-war years to an average of about 48,000 tons at present (1926–1930) while Persian output is now estimated to average approximately 30,000 tons (see page 86), or about 12,000 tons below the pre-war average (see table 35).

Consumption.—The decrease in world currant production is largely the result of the increasing preference of consumers for the seedless raisin of the sultana type which, for most purposes, can be used instead of currants. The very low raisin prices prevailing in recent years, as a result of excessive supplies, together with extensive trade-promotion activities, have been the chief causes of the big post-war increase in world consumption of raisins. However, neither the absolute nor the relative reduction in currant consumption during the past decade has been as great as the increase in raisin consumption. The rapid extension of the market for raisins (see table 3) has undoubtedly checked the growth of the currant industry in Greece, and has actually decreased currant consumption in several important markets (see table 4). However, it appears that no rapid displacement of currants by raisins is likely to occur during the next decade on the most important currant market—the United Kingdom. In several Continental European countries, such as Germany and the Netherlands, consumption appears to depend primarily on price rather than quality or other factors, the bulk of the demand being for whichever product—raisins or currants—is cheaper.

THE GREEK CURRANT INDUSTRY^s

Next to California, Greece is the world's largest producer of raisins and currants combined and accounts for about a third of the world total (see table 1). Currants constitute by far the bulk of the Greek production of dried vine fruits. Until recent years, Greece held a natural mo-

^s General sources used for this section in addition to those given in specific footnotes:

Avarna, Giuseppe. La produzione ed il commercio della passoline in Grecia Italy. Ministero di Agricoltura. Bollettino di Notizie Agrarie. October, 1899.

Autonomous Currant Office. Bulletin of the Autonomous Currant Office [translated title]. Athens.

Eiswaldt, E. Die Wirtschaft Griechenlands. [The agriculture of Greece.] 184 p. Duncker und Humblot, München u. Leipzig, 1928.

[Greece] Official Gazette [translated title]. Athens.

Kromidakis, James K. The currant-grape industry with particular reference to the trade of the United States. 121 p. Berkeley. 1924 (Typewritten thesis [M.S.], University of California. December, 1924. On file in the University of California Library.)

monopoly in currant growing, but Australia now produces about one-tenth of the world output of currants.

The Greek currant crop is produced mainly on a strip of land running along the northern coast of the Peloponnesus, westward from Corinth to Patras, around the northwest corner and down the west coast, and on the islands of Zante and Cephalonia. The raisin crop, on the other hand, is grown mainly on the island of Crete. Because of soil and climatic conditions, the best of the seedless black currants produced in Greece probably have a better flavor than those produced in other countries.

The importance of the Greek currant industry to the well-being of the whole country is indicated by the fact that about half a million people are said to depend directly upon it for their livelihood. As to the additional number dependent upon raisin growing, there are no figures. Any crisis in the currant business is keenly felt by producers, because the entire livelihood of a large number of peasants, holding only from 2 to 12 acres apiece and specializing in currant production, depends upon this one crop.

PRODUCTION TREND

The production of currants in Greece amounted to only 147,000 tons in 1930, but since 1870 it has varied for the most part between 150,000 and 200,000 tons annually (table 5). Most of the output has been disposed of abroad since domestic demand and consumption have been small and utilization for wine and alcohol has not given a remunerative return to growers. During the past ten or fifteen years, largely because of the policy of restriction, production has been smaller on the whole than in earlier years, and a smaller portion of the crop has been exported.

The available estimates of currant acreage in Greece for the years 1915 to 1929⁹ appear to be quite unreliable even as an indicator of the trend of production. They differ greatly from year to year in an obviously inconsistent manner, showing, for example, 157,000 acres in 1923, about 194,000 in 1924, and about 180,000 in 1925. The estimates for the four years 1926–1929 appear relatively more consistent although their accuracy is questionable. Acreage data show a downward trend somewhat in line with that indicated by the production estimates in table 5, decreasing from about 159,000 acres in 1926 to about 147,000 acres in 1929. The four-year average is approximately 152,000 acres while the corresponding average annual production indicated by table 5 is about 148,000 tons. Calculations based on these figures indicate an

⁹ Acreage data 1915–1928 in: *Statistique Annuelle du Rendement Agricole de la Grèce*; and 1929 in: *Internatl. Yearbook of Agr. Statis. 1929–30*.

average yield of somewhat less than 1 ton per acre, which corresponds closely to Simpson's¹⁰ estimates in 1923 of a normal yield of something under 1 ton per acre, probably about $\frac{9}{10}$ ton.

TABLE 5

GREEK PRODUCTION AND EXPORTS OF CURRANTS FOR SPECIFIED YEARS, 1870-1891, ANNUAL 1893-1933

Year	Production*	Exports†	Year	Production*	Exports†
	<i>short tons</i>	<i>short tons</i>		<i>short tons</i>	<i>short tons</i>
1870.....	58,190	61,893	1910.....	133,837	128,547
1876.....	97,759	87,285	1911.....	176,686	126,748
1878.....	111,090	108,445	1912.....	182,505	134,895
1881.....	140,185	140,450	1913.....	171,925	131,245
1888.....	178,802	171,713	1914.....	158,700	131,192
1891.....	181,976	171,555	1915.....	134,895	110,561
1893.....	185,679	167,693	1916.....	97,865	56,603
1894.....	167,693	163,461	1917.....	126,960	27,508
1895.....	198,904	186,208	1918.....	126,960	110,720
1896.....	174,570	158,171	1919.....	136,482	116,539
1897.....	198,375	123,786	1920.....	145,475	94,215
1898.....	189,382	153,410	1921.....	129,605	104,213
1899.....	160,816	138,069	1922.....	128,547	85,645
1900.....	51,842	55,016	1923.....	105,800	100,246
1901.....	158,700	137,011	1924.....	178,802	95,061
1902.....	178,273	145,475	1925.....	171,925	94,638
1903.....	205,781	129,605	1926.....	148,914	91,993
1904.....	170,338	135,424	1927.....	142,618	95,802
1905.....	180,918	127,489	1928.....	155,900	77,528
1906.....	152,352	122,199	1929.....	143,400	77,702
1907.....	175,628	141,243	1930.....	147,400	85,596
1908.....	210,542	121,141	1931.....	73,700	70,759
1909.....	207,897	135,424	1932.....	144,000	76,558
			1933.....	114,000‡	—

* Calendar year in which harvested.

† Export seasons extending from September 1 of year indicated to August 31 of the following year.

‡ Preliminary estimate. About 50,500 tons were so damaged by rain as to be unfit for export, 25,700 were slightly damaged, and 37,800 undamaged.

Sources of data:

Data on production and exports for years 1870 to 1922 from: Documentary Report to the bill regarding the Autonomous Currant Office, Athens, June 12, 1924. (Data from Struck, Adolf, Zur Landeskunde von Griechenland, p. 101, 174. Heinrich Keller, 1912, appear to be roughly comparable with other production data in this table.)

1923 to 1928: from Greek Legation, Washington, D. C.

1929 to 1933: from U. S. Agr. Commissioner N. I. Nielsen, Marseilles, France. The official Greek Government statistics given in the publication, "Statistique Annuelle Agricole de la Grece," also give currant production figures, but because the Autonomous Currant Office is in such close touch with the currant situation, figures issued by the latter probably give a clearer picture of the situation than do the government figures. The figures from the Greek Legation are furnished by the Autonomous Currant Office.

EXPORTS AND EXPORT MARKETS

The leading export markets for Greek currants are the United Kingdom, Germany, the Netherlands, the United States, and Canada (see tables 6 and 7). Exports, however, have undergone a rather decided decline since 1919. In the principal markets the Greek currant has lost

¹⁰ Simpson, John L. Greek currant situation, p. 11-12. (Typewritten report to Sun-Maid Raisin Growers Association covering observations in Greece from August 24 to September 15, 1923.) Mr. Simpson believed that the currant acreage of Greece in 1923 was roughly about 150,000 acres.

much ground since the World War on account of a growing preference by consumers for the small seedless raisin which, for many purposes, can be used in the place of the currant.

The British Market.—The chief consumer of Greek currants is the United Kingdom, which, for many years, has taken from 60 to 80 per cent of Greek exports. Since the War, however, British imports of cur-

TABLE 6
GREEK EXPORTS OF CURRANTS BY COUNTRIES OF DESTINATION,
AVERAGE 1909-1913, ANNUAL 1920-1932

Calendar years	Total	United Kingdom	Netherlands	Germany	United States	Canada	Italy	France	Belgium	Other countries
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Average: 1909-1913	233,238	121,268	29,457	28,779	29,705	*	*	4,412	1,903	17,714
Annual:										
1920	211,938	126,923	10,267	4,020	63,115	1,266	488	4,308	697	854
1921	195,833	105,808	21,044	8,891	47,930	2,539	1,390	3,032	1,384	3,815
1922	160,659	107,740	20,853	2,330	21,672	1,581	638	4,090	1,440	315
1923	241,831	186,290	21,048	7,715	20,345	2,315	1,357	1,753	592	416
1924	205,965	123,532	34,356	22,996	15,282	1,754	3,551	1,629	1,083	1,782
1925	176,854	111,825	18,969	16,263	16,389	1,847	7,406	1,400	450	2,305
1926	177,488	114,209	20,674	15,726	14,997	1,482	7,550	1,313	351	1,186
1927	180,350	120,677	18,967	17,998	10,160	839	7,313	3,011	512	873
1928	179,483	124,118	14,849	18,467	11,358	817	7,388	1,433	331	722
1929	151,703	99,459	17,483	14,802	9,387	104	7,568	1,124	198	1,578
1930	160,927	109,468	17,910	12,749	9,206	187	6,460	1,140	399	3,408
1931	146,361	95,389	19,645	16,387	6,693	*	3,009	981	79	4,178
1932†	155,995	103,627	23,580	14,531	6,746	*	4,123	1,153	*	2,235

* Included in "other countries."

† Preliminary data subject to revision.

Sources of data:

Data through 1928 from: *Statistique du Commerce Special avec les Pays Etrangers*. 1929-1932 from *Bulletin Mensuel du Commerce Special de la Grece avec les Pays Etrangers*. December issues.

rant from Greece have declined largely because of increasing competition from both currant and raisin supplies from other producing countries (table 8). Since 1920, United Kingdom imports from Australia have increased from a normal of less than 1 per cent to about 15 per cent of total currant imports. Rapid expansion of raisin production in both California and Australia during the past decade has naturally resulted in low prices and a big increase in British imports from these two producing areas. Moreover, since 1924, importation of Australian raisins into the United Kingdom has been stimulated by the preferential customs duty of 7 shillings a hundred weight of 112 pounds (the equivalent of 1.5 cents a pound at par exchange) granted them in 1925. On November 17, 1932, the duty was raised to 10 shillings 6 pence, the equivalent

of 2.3 cents a pound with sterling at par, but considerably less at the exchange rates prevailing at that time.

Increasing competition from raisins has been an important factor in

TABLE 7

CURRENT IMPORTS INTO PRINCIPAL IMPORTING COUNTRIES, BY COUNTRY FROM WHICH IMPORTED, CALENDAR YEAR AVERAGES, 1909-1913, 1921-1925, AND 1926-1930

Importing country and years	Country from which imported			Importing country and years	Country from which imported		
	Total	Greece	Australia		Total	Greece	Australia
	1,000 pounds	1,000 pounds	1,000 pounds		1,000 pounds	1,000 pounds	1,000 pounds
United Kingdom:*				New Zealand:			
1909-1913.....	139,706	139,171	†	1909-1913.....	2,626	1,767	137
1921-1925.....	136,589	124,395	11,968	1921-1925.....	1,402	430	959
1926-1930.....	129,981	112,519	17,187	1926-1930.....	1,311	269	1,017
Germany:				Union of South Africa:			
1909-1913.....	36,342	35,412	†	1909-1913†.....	1,851	1,213	69
1921-1925.....	12,678	12,527	†	1921-1925.....	867	223	628
1926-1930.....	21,849	21,845	†	1926-1930.....	974	565	398
Netherlands:				Denmark:			
1909-1913.....	26,389	25,917	†	1909-1913.....	757	362	†
1921-1925.....	24,929	23,508	†	1921-1925.....	677	333	†
1926-1930.....	23,104	23,040	†	1926-1930.....	584	332	†
United States:				Poland:			
1909-1913†.....	32,559	32,229	0	1909-1913.....	**	**	**
1921-1925.....	26,021	25,328	136	1924-1925§.....	258	95	†
1926-1930.....	10,890	10,628	54	1926-1930.....	1,211	903	†
Canada:				Sweden:			
1909-1913.....	11,590	9,374	†	1909-1913.....	232	86	†
1921-1925.....	5,762	4,514	153	1921-1925.....	277	124	†
1926-1930.....	5,208	1,325	3,728	1926-1930.....	340	152	†
Irish Free State:*				Czechoslovakia:			
1924-1925§.....	7,789	2,569	†	1909-1913.....	**	**	**
1926-1930 	7,420	3,455	†	1921-1925.....	89	20	†
				1926-1930.....	167	136	†

* The Irish Free State is included with United Kingdom previous to April, 1923.

† Few, if any. Outside of British countries, currant imports are nearly all of Greek origin, although not always imported directly from Greece.

‡ Year beginning July 1.

§ Two-year average, 1924-1925.

|| Four-year average.

¶ Includes raisins.

** Data not available.

Source of data:

Compiled from official sources by the Foreign Agricultural Service of the U. S. Department of Agriculture. Data for 1930 in some instances may be preliminary and therefore the 1926-1930 average may be subject to minor changes.

restricting British imports of Greek currants. In the years 1909 to 1913, the imports of Greek currants into the United Kingdom averaged approximately 139,000,000 pounds annually, while net imports of raisins

from all countries averaged nearly 79,000,000 pounds. Up to 1926 currants from Greece and Australia continued to be imported into Great Britain in larger quantities than raisins with the exception of the one year, 1922. Since 1925 raisin imports have exceeded currant imports by a considerable margin.

TABLE 8
UNITED KINGDOM IMPORTS* OF CURRANTS AND RAISINS,
AVERAGE 1909-1913, ANNUAL 1920-1932

Calendar year	Currants			Raisins, total
	Greece	Australia	Total†	
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average:				
1909-1913.....	139,171	—‡	139,705	80,733
Annual:				
1920.....	136,089	935	138,959	75,538
1921.....	108,084	4,525	112,869	81,552
1922.....	107,610	8,995	116,845	131,076
1923.....	160,979	10,586	172,033	126,519
1924.....	129,764	20,511	150,337	130,888
1925.....	115,540	15,224	130,863	126,272
1926.....	113,633	16,962	130,731	130,164
1927.....	126,269	10,789	137,140	178,331
1928.....	122,631	1,390	124,253	156,127
1929.....	96,410	26,835	123,549	179,478
1930.....	103,652	29,959	134,234	153,733
1931.....	94,355	23,431	118,248	139,059
1932§.....	106,840	20,584	127,424	187,958

* Data are for gross imports, i.e., reexports have not been subtracted.

† The total imports of currants include small quantities imported from countries other than Greece and Australia.

‡ Imports for Australia not reported separately but were very small.

§ Preliminary data subject to revision. Data on imports of currants from Greece and Australia include small quantities imported from other foreign countries and other British countries.

Sources of data:

Compiled from Annual statements of the trade of the United Kingdom with foreign countries and British countries except data for 1932 which are from monthly accounts relating to the trade and navigation of the United Kingdom for December, 1932.

It appears that the rapid extension of raisin consumption since the War has undoubtedly checked the further growth of the currant industry and has perhaps actually made some inroads into it. However, no rapid displacement of currants by raisins is apt to occur in the British market, for currants will undoubtedly continue to be preferred to raisins for many of the uses to which they have heretofore been put.

The Netherlands and German Markets.—The second and third most important direct export markets for Greek currants are the Netherlands and Germany, respectively. During the period 1909-1913, Germany took, on an average, about 35,412,000 pounds of Greek currants annually and the Netherlands an average of 25,917,000 pounds annually.

In the years 1926–1930 German imports of Greek currants averaged 21,845,000 pounds annually and the Netherlands averaged 23,040,000 pounds annually (see table 7). All of the German imports of currants come from Greece. The Netherlands, however, in addition to the annual average of 22,789,000 pounds imported direct from Greece, also imports small quantities of currants from the United Kingdom and Germany, which are undoubtedly of Greek origin transshipped from British and German markets.

TABLE 9

GERMAN IMPORTS OF CURRANTS AND RAISINS, AVERAGE 1909–1913,
ANNUAL 1922–1932

Calendar year	From Greece		Total raisins from all countries*
	Currants	Raisins*	
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Average:			
1909–1913	35,412	1,662	39,900
Annual:			
1922.....	2,489	677	3,464
1923.....	2,556	1,196	7,937
1924.....	22,708	6,439	50,795
1925.....	22,059	10,907	55,402
1926.....	20,757	10,506	59,306
1927.....	23,608	9,728	61,451
1928.....	22,289	13,102	74,218
1929.....	21,413	13,597	76,032
1930.....	21,158	14,147	78,540
1931.....	18,231	13,488	75,758
1932.....	19,165	11,318	79,069

* Does not include cluster raisins.

Source of data:

Monatliche Nachweise über den Auswärtigen Handel
Deutschlands.

While the Dutch and German imports of currants since the War have remained at a relatively stable level, there has been a rapid increase in imports of raisins into both markets. In Germany the raisin imports are now normally about three times those of currants, while in the Netherlands, raisin imports have only recently come to exceed those of currants (tables 9 and 10). German imports of raisins in 1930 amounted to 78,540,000 pounds, while raisin imports into the Netherlands amounted to 24,329,000 pounds (table 10). In Germany and the Netherlands, as well as in several other Continental European countries, consumption appears to depend primarily on price rather than quality or other factors, the bulk of the demand being for whichever product—raisins or

currants—is cheaper.¹¹ The average housewife in these countries is very economical in using raisins. However, raisins are gradually coming into use in everyday cooking and not merely as a luxury ingredient in cakes. For use in puddings and other combination dishes, when raisins are cheaper than currants, their larger size frequently gives them preference over currants.

TABLE 10
NETHERLANDS IMPORTS OF CURRANTS AND RAISINS,
AVERAGE 1909–1913, ANNUAL 1920–1932

Calendar year	Currants		Raisins		
	From Greece	Total currants*	Sultanas from Greece	Total sultanas	Total, all raisins
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average:					
1909–1913	25,917	26,389	†	†	10,931
Annual:					
1920	13,991	14,854	666	3,843	—†
1921	21,823	25,362	735	6,397	9,162
1922	21,806	23,739	2,443	5,362	7,615
1923	24,491	25,470	1,792	14,996	18,768
1924	29,493	29,850	1,964	17,919	20,798
1925	19,927	20,218	881	10,388	12,617
1926	25,410	25,549	639	13,653	16,264
1927	27,229	27,270	437	16,722	18,946
1928	19,019	19,057	600	24,449	26,535
1929	22,350	22,443	410	27,957	29,845
1930	21,186	21,210	299	22,408	24,329
1931	22,375	22,758	263	22,415	24,394
1932§	22,553	22,626	—	22,015	23,849

* Includes imports from the United Kingdom and Germany which undoubtedly are of Greek origin.

† Imports of sultana raisins separately are not available for years 1909–1913.

‡ Dashes indicate data not available.

§ Preliminary data subject to revision.

Source of data:

Nederland Jaardstatistiek van den in-uit-en door voer, and Nederland Maandstatistiek van den in-uit-en door voer, December issue.

The American and Canadian Markets.—Before the War, the United States was an important export market for Greek currants, imports directly from Greece having averaged 32,229,000 pounds annually during the five years 1909–1913 (see table 11). Since the War, however, imports of Greek currants have averaged only 10,628,000 pounds annually (1926–1930). It is obvious, therefore, that the Greek currant trade has suffered a serious reversal in the American market in recent years, imports now amounting to only about a third of the pre-war total.

¹¹ In this connection it may be mentioned that on these markets especially, the prospect for Greek currants is dependent upon the quality of the Smyrna Sultana crop. If this, as often happens, is damaged by rain, it is sold at a very low price and a dull currant market is the result. This is especially true if the Greek fruit of which Germany and the Netherlands import mainly lower grades, is of poor quality, as it has been in recent years.

In the Canadian market much the same thing has occurred. In the period 1909–1913 Canada imported an average of 9,374,000 pounds of currants annually directly from Greece (see table 12), but in the years 1926–1930 only 1,325,000 pounds annually. Not only have Canadian imports of Greek currants declined materially but total Canadian imports

TABLE 11

UNITED STATES IMPORTS OF CURRANTS BY COUNTRIES OF ORIGIN,
AVERAGE 1909–1913, ANNUAL 1920–1932

Calendar year	Greece	Australia	Other countries*	Total
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Average:				
1909–1913†.....	32,229	—‡	—	32,559
Annual:				
1920.....	54,229	26	1,577	55,832
1921.....	55,387	153	1,547	57,087
1922.....	20,822	157	459	21,438
1923.....	23,009	140	325	23,474
1924.....	13,624	118	223	13,965
1925.....	13,796	109	287	14,192
1926.....	12,772	64	480	13,316
1927.....	11,597	115	239	11,951
1928.....	10,386	22	259	10,667
1929.....	9,697	53	52	9,802
1930.....	8,688	16	12	8,716
1931.....	6,420	6	0	6,426
1932.....	7,150	62	5	7,217

* Imports from "other countries" are probably of Greek origin though imported from, i.e., via the United Kingdom, Italy, Canada, and some other countries.

† Years beginning July 1.

‡ Dashes indicate data not available.

Sources of data:

U. S. Dept. Com. Foreign Commerce and Navigation of the United States, annual issues.

of currants are now only about half of what they were before the War. In 1925 Canada granted free entry to Australian currants, which had previously been dutiable at $\frac{2}{3}$ cents a pound. This materially stimulated exports of currants from Australia to the Canadian market. As a result, Australia has now largely replaced Greece as a source of supply for currants. Moreover, the total decline in the Canadian imports of currants has been offset by increased imports of raisins, which in a number of recent years have been nearly double the pre-war average.

The New Zealand Market.—New Zealand was an important export market for Greek currants before the War, imports of currants during the period 1909–1913 averaging 2,626,000 pounds annually, practically all from Greece (see table 13). During the five years 1926–1930 the

TABLE 12

CANADIAN IMPORTS OF CURRANTS BY COUNTRIES OF ORIGIN AND TOTAL IMPORTS OF RAISINS, AVERAGE 1909-1913, ANNUAL 1920-1932

Calendar year	Currants				Raisins
	Greece	Australia	Other countries*	Total	Total
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Average:					
1909-1913	9,374	—†	2,216	11,590	22,331
Annual:					
1920	4,453	136	1,113	5,702	35,879
1921	6,046	43	1,214	7,303	24,833
1922	2,798	33	1,409	4,240	31,849
1923	5,122	210	1,049	6,381	37,536
1924	4,345	140	1,084	5,569	46,785
1925	4,260	340	716	5,316	31,681
1926	3,398	688	494	4,580	40,854
1927	1,260	4,824	40	6,124	41,400
1928	1,179	5,428	25	6,632	44,594
1929	366	3,987	168	4,521	40,824
1930	422	3,712	47	4,181	35,636
1931	388	4,471	6	5,865	36,700
1932	121	5,596	3	5,720	40,602

* Imports from "other countries" are probably of Greek origin although imported from, i.e., via the United States, the United Kingdom, and some other countries.

† Dashes indicate data not available.

Source of data: Monthly and Quarterly Reports of the Trade of Canada.

TABLE 13

NEW ZEALAND IMPORTS OF CURRANTS BY COUNTRIES OF ORIGIN AND TOTAL IMPORTS OF RAISINS, AVERAGE 1909-1913, ANNUAL 1921-1932

Calendar year	Currants				Raisins
	Greece	Australia	Other countries*	Total	Total
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Average					
1909-1913	1,767	137	722	2,626	4,681
Annual:					
1921	163	182	0	345	4,299
1922	273	1,349	19	1,641	6,212
1923	243	1,302	8	1,553	6,930
1924	605	1,190	28	1,823	8,266
1925	848	790	12	1,650	8,050
1926	336	635	79	1,050	9,044
1927	280	1,148	27	1,455	9,394
1928	241	1,039	5	1,285	9,009
1929	315	1,146	8	1,469	9,651
1930	170	1,114	10	1,294	7,980
1931	108	1,524	0	1,632	9,611
1932	90	1,326	3	1,419	10,394

* Imports from "other countries" are probably mostly reexported Greek currants.

Source of data:

Statistical Report on Trade and Shipping of New Zealand, and Monthly Abstract of Statistics.

currant imports from Greece averaged only 269,000 pounds annually (table 7). Greece has lost ground in this market by the competition from Australian currants and California seedless raisins. Imports of currants have declined as compared with the pre-war period, while the raisin imports have steadily increased. New Zealand imports of raisins averaged 4,681,000 pounds annually during the period 1909–1913. In 1929 she imported 6,112,147 pounds of raisins from the United States alone, and 9,651,000 pounds from all foreign sources.

TABLE 14
ARGENTINE IMPORTS OF CURRANTS AND SULTANAS
FROM GREECE AND OF RAISINS FROM THE
UNITED STATES, 1925–1931

Calendar year	Greek currants and Sultanias	California raisins
	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1925.....	228	418
1927.....	177	767
1928.....	222	1,575
1929.....	125	1,458
1930.....	25	1,764
1931.....	60	1,313

Sources of data:

1925-1929 from: report of the United States
Trade Commissioner M. T. Houghton.

1930 and 1931 from: Anuario del Comercio Ex-
terior de la Republica Argentina.

Other Foreign Markets for Greek Currants.—South American and Far Eastern markets have taken very few Greek currants up to the present time. An effort is being made to develop the trade both in the South American countries and in the Far East, but competition from California, Spanish, and Australian raisins presents a formidable obstacle. The currant is too expensive for these markets, which, moreover, seem to prefer the sweeter flavor of the raisin to the somewhat tart flavor of the currant.

Among the separate countries in this group, Argentina is the most important. The Argentine import figures in table 14 indicate that imports of Greek currants have scarcely been holding their own in recent years, whereas imports of raisins from the United States have markedly increased.

Export Outlook.—It appears that the sultana raisin has proved to be a greater menace to the currant industry of Greece than has direct competition from the currants produced in Australia. It is doubtful whether the Greek currant will be able to regain its former position. Although there will probably always be a demand for large quantities of currants,

consumption will probably not increase much unless currant prices become considerably lower than raisin prices. However, overproduction already exists in the Greek currant industry. Prices therefore have been low for several years, so that a large increase in foreign consumption could hardly occur unless marked economies in costs of production are effected that make lower prices profitable to growers. This appears rather unlikely. With world production of raisins also tending to exceed world demand, it would appear that currants will be doing exceedingly well to hold their own in world competition.

EARLY DEVELOPMENT OF GOVERNMENT AID¹²

As long as the Greek currant-growing areas were under the Turkish government the industry made no progress. After the war of independence (1821–1829), however, a rapid development took place under the influence of the land-settlement laws of 1835 and 1879. In 1877 a new economic factor began to play a very important role. The bulk of French vineyards were destroyed by phylloxera and there was consequently a great demand for imported currants to be used in wine-making. From a relatively unimportant currant market, France became the chief one, and her imports increased between 1877 and 1889 until they accounted for over half of the Greek crop. Greek producers invested their capital in extensive new plantings.¹³ Between 1876 and 1893 production rose from 98,000 tons to 186,000 tons (see table 5). After the reestablishment of the French vineyards by the introduction of resistant American vines the French market soon disappeared, and French wine growers insisted on protection from the competition of imported currants.

Greece has ever since been confronted with the difficult problem of marketing her surplus currants. The increase of world population during the last fifty years has afforded little relief because competitive raisin industries in California, Smyrna, Spain, South Africa, and Australia have diverted most of the potential world demand from currants to raisins.

¹² Concerning the history of the attempts to aid the Greek industry, see: Eisen, Gustav. *The raisin industry*. H. S. Crocker and Company, San Francisco. 1890; and Kipps, J. *The Greek currant trade*. *Econ. Hist.* (a supplement of the *Economic Journal*) 2(5):137. 1930. Much of what is said herein concerning this subject is drawn from these sources.

¹³ "Instead of using their profits to pay off debts, the peasants invested all available capital in new plantations, and in the speculative mania the quality of the vineyards was neglected; for it had become profitable to plant poor quality but large-bearing vines. Currants displaced all other crops, olives were cut down and pastures turned into vineyards." Kipps, J. *The Greek currant trade*. *Econ. Hist.* (a supplement to *Economic Journal*.) 2(5):140. 1930.

The First Retention Law (1895) and Subsequent Revisions.—With prices remaining ruinously low the pressure for government intervention on behalf of the growers became irresistible. After consideration and rejection of the idea of restriction of production¹⁴ the Retention Act was passed in 1895. This Act provided that every exporter should deliver 15 per cent of his intended exports to a government warehouse, without remuneration, or else pay the equivalent of this amount in cash. The retained currants were to be used within the country, for industrial purposes only (wine and industrial alcohol) and no other substance but currants and grapes was to be used for these purposes.

This measure was expected to raise prices by creating an artificial shortage on the foreign market. The law was based on the unique position of the Greek industry, i.e., the fact that virtually the whole crop was exported, and that these exports constituted almost the entire world supply. Whether paid in cash or in kind, the retention requirement operated virtually as an export tax. Exporters continued to glut the market, however, by paying cash to the government and exporting the fruit, so that in 1896 the cash provision of the law was repealed. Another amendment, passed in 1899, provided that the quota be fixed yearly by an official committee according to variations in the size of the crop, with the quota limits ranging, however, from 10 to 20 per cent. The retention currants were sold by the government to wine makers and distillers, and the profit was accumulated and used to establish the "Currant Bank" in 1899. This bank was to make loans to growers at a low interest rate of 6 per cent. Every grower was a shareholder of this bank and the size of the loans a grower could obtain depended on the volume of his sales.

This legislation was followed by further increase in acreage and production. Under the prevailing arrangement the bother of disposing of from 10 to 20 per cent of his surplus crop was entirely removed from the grower; and the more he sold in one season, the greater was the advance he could obtain in the next for carrying on his business.

A further increase in the retention quota was not sufficient to maintain prices. The government, therefore, undertook to pay a fixed minimum price for all currants offered to the Currant Bank. Loans were made to the Currant Bank for financing storage and marketing. It hap-

¹⁴ "The suggestion to restore equilibrium by a restriction of production was not popular. Restriction on a cartel system by a mutual agreement of quotas would be obstructed by the smallness of the units of production, the difficulty of forecasting the size of the crop, the illiteracy of the peasants, and the complete absence of organization among them. The obstacles confronting an attempt to organize the growers were large and numerous. The Greek was said to be temperamentally opposed to combination and mistrustful of his neighbors..." Kipps, J. The Greek currant trade. *Econ. Hist.* (a supplement of the *Economic Journal*) 2(5):141. 1930.

pened, however, that the fixed price was better at that time than the market price. As a result warehouses became overstocked and the Bank suffered ruinous losses.

The price-fixing scheme was accordingly dropped and a government monopoly was considered, the situation having meanwhile become more serious as a result of the bumper crops in 1902 and 1903. The monopoly, however, was protested by England, Germany, and the Netherlands, because it was not in harmony with the commercial treaties between Greece and those countries. The retention, therefore, was taken up again in 1904. With a 20 per cent retention, and with a 15 per cent export tax which (formerly paid in cash) had to be delivered in kind, the retention quota now actually amounted to 35 per cent of the quantity exported. New plantings were made impossible by a heavy tax on increasing acreage. But new difficulties arose. In addition to its large immediate obligations, the Currant Bank, after several years of existence, found that it had almost as many requests for loans as there were currant growers. Moreover, its warehouses were full of currants which could not be disposed of, amounting to about 200 million pounds. The situation naturally became financially impossible, and the Currant Bank failed.

THE PRIVILEGED COMPANY, 1905-1925

Under the foregoing conditions the government saw no other solution than to take up a kind of monopoly scheme again. This time a private joint stock company, "The Privileged Company for the Protection of Currant Production and Trade," was created by the law of July 30, 1905. The essential difference between this institution and the former Currant Bank was that the shareholders of the latter were only Greek peasants, while the shareholders of the Company were mostly foreign capitalists. The charter was valid for twenty years. The new law provided that the Company should retain in kind 35 per cent of the intended exports, to be used within the country for industrial purposes, and prohibited the making of wine and alcohol from materials other than grapes and currants. In order to support the Company's activity the prohibitive tax on new plantings was continued and the government obligated itself not to reduce taxes on alcoholic liquors imported into Greece nor to impose any export duty on Greek alcoholic drinks.

Functions of the Privileged Company.—In return for the privilege of receiving great quantities of currants without paying for them, the Company had to pay in advance the land tax from which the grower was freed, though the grower still had to pay to the Company a special tax on all currants produced. It also undertook to conduct an advertising

campaign for increased consumption of currants, but this never got very far. Up to 1914 the Company was also obliged to pay a fixed price for any currants offered to it during the crop season, and to guarantee a fair minimum price for purchases made at the end of the season. The Company was given the exclusive right of warehousing currants and was required to grant loans to growers at the low interest rate of 6 per cent.

Difficulties and Criticisms.—As a result of heavy crops, in 1908 and 1909 the Privileged Company passed through a crisis from which it emerged only with the help of an “uprooting” law in 1910. A government loan was granted to the Company with which to compensate the owners of the 47,000 acres of currants which were destroyed from 1910 to 1913 under the “uprooting” law. In spite of these, and, subsequently, other measures of assistance by the government, the Company made an average profit of only 1.8 per cent during the first nine years of operation (1905–1914). The Wine and Spirits Company, organized to manufacture the retained currants into wine and alcohol, made large profits from the low-priced currants sold to it by the Privileged Company, but these profits did not go to the growers.

The Privileged Company was criticized continually on the grounds that it thought only of profit-making by decreasing production and by other manipulations, and that it did nothing to stimulate the consumption of currants in the world or to improve the wasteful marketing and unhygienic packing methods. Growers felt that they were not helped at all by its functions. In 1925 the twenty-year charter of the Privileged Company was to expire; and when it came time to consider renewal the official report on the record of the Company proved to be so critical that the government at once gave up all idea of renewing the charter. Throughout the last year of the old charter the government actually took over the functions of the Privileged Company and contracted with the National Bank for financial assistance in the complete management of the industry for one year.

THE CENTRAL CURRANT OFFICE

A new law enacted in 1925, creating the Autonomous Central Currant Office, was a wide departure from earlier legislation, in that it placed the regulation of the industry in the hands of a large central coöperative association of the growers. Earlier government intervention had been necessitated partly because of the lack of organization or coöperative spirit among the growers, but by 1925 coöperation had made such pro-

gress that it was now possible for the first time to organize the industry on a coöperative basis.¹⁵

In establishing the Central Currant Office the government was faced with difficult problems of policy and organization. It was decided that the new organization should represent the entire currant industry and should not be a mere private corporation organized for profit. Since it did not seem feasible to establish a coöperative organization with sufficient membership to control disposal of the entire crop, the government solved the problem by establishing a nonprofit association, the Central Currant Office, endowing it with monopoly powers with a minimum of government participation in its conduct. The promoters of the plan had in mind such institutions as the German sugar cartels and similar British organizations for agricultural produce. The Central Currant Office has no shareholders; it is owned by nobody; it is autonomous.

Organization and Function.—The organization of the Central Currant Office is such that the growers, who had no influence in the business matters of the Privileged Company and were said to have been exploited by it, now take part through their coöperatives in outlining the policies affecting their industry. Eight delegates to an Administrative Council are elected for three years from the Unions of Agricultural Coöperative

¹⁵ The rapid growth of the coöperatives was due to changed conditions during and following the War. The war-time military discipline, agricultural prosperity during and immediately after the War, better loan facilities, and other factors, all helped to stimulate the growth of coöperation to the point where most of the currant growers now belong to coöperatives.

Earlier legislation had definitely encouraged the growth of coöperatives; and subsequent legislation has continued this policy. A decree of May 29, 1920, created a council of agricultural coöperative societies, composed partly of government officials and partly of representatives of the coöperatives, empowered to give its opinion on all questions regarding coöperative matters, particularly the granting of credit. A decree of March 23, 1923, dealt with the reconstruction of coöperative societies of farmers. When the government in 1924–25, coöperating with the National Bank, went to the assistance of the currant and raisin industry, associations of growers were granted loans from the government at lower interest rates than were individual producers. Later on, when the duty-free entry of agricultural equipment, which had been in effect since 1914, was abolished, the coöperatives, especially those of currant growers, were favored by the decree of December 22, 1928, which allowed them importation of sulfur, copper sulfate, and fertilizers, free of duty. In the fall of 1929, the National Bank, coöperating with the Central Currant Office made loans on currant mortgages at a better rate to coöperatives than to individual producers or merchants. Early in 1930, the Central Currant Office decided to buy up to 5,290,000 pounds of the lower-grade currants for the purpose of stabilizing the market, but only from coöperatives.

Other laws passed in 1926 and 1929 have given government aid to mutual insurance coöperatives, particularly those insuring against hail and frost damage. These and other measures indicate the importance which the government has in recent years attached to coöperative action as a method of improving the condition of the currant industry, as of other branches of domestic agriculture. The coöperatives, of which there are today over 900 in the currant industry, with 30,000 members, undertake, besides commercial transactions, coöperative wholesale supply of necessary materials and credit.

Societies, from coöperatives not belonging to the Union, and from the unorganized producers. In addition, the grape growers have one representative on the Council, currant exporters two (elected by the Chambers of Commerce), and the government has four delegates from the Ministries of Agriculture, Finance, National Economy, and the National Bank. A managing director is the sixteenth member of the council and chairman; the council elects a committee of three to manage the Central Currant Office. The ministerial representation on the council is provided for in order to give expert advice and also because of the government's interest in the export tax. The administration in general, however, is as far removed as possible from the civil service.

The more important prescribed activities of the Central Currant Office are as follows:

1. The establishment of a balance between supply and demand by retention, or by purchase at fixed prices according to the grade or variety, of surpluses in the open market and the handling and disposal of currant products coming in any way to the organization.

2. General insurance of the product against production risks, and the study and application of scientific means for the improvement and protection of quality, and for the reduction of the cost of cultivation.

3. The warehousing and classification of the currants in accordance with specified commercial standards for producers, coöperative organizations, or merchants.

4. Encouragement of greater consumption of currants through advertisement and other ways.

5. The systematizing and standardization of marketing methods.

6. Encouragement, through the coöperative organizations, of coöperative action in obtaining agricultural supplies for currant production.

7. The support of currant prices in foreign markets by a special system of export credits.

The Central Currant Office is exempt from taxes, postages, stamp duties, and similar charges. Financed at the beginning by the government, it has completely paid off these advances from profits made by the handling of the retained currants. The Central Currant Office is obliged to pay to the government, out of the gains by the retention, the general land tax on all currants produced, in place of direct payments of the tax by the growers themselves. It also imposes certain charges upon exporters (to be paid in British currency), besides a special export tax for defraying the expenses of the advertising campaign.¹⁶

¹⁶ Besides the various local taxes there is a general tax upon exported currants, levied for the support of the agricultural advisory boards in the currant districts. These taxes are not connected in any way with the operation of the Central Currant Office.

Market Stabilization by Retention.—The retention scheme is inseparably connected with the operation of the Central Currant Office. The annual retention quotas fixed during the period 1926 to 1928 amounted to 50 per cent of the intended exports, but were reduced to 45 per cent for the 1929 and 1930 exports. For the export season 1930–31 the quota was again raised to 50 per cent. The determination of this percentage is based on the size of the crop and on the information which the Central Currant Office receives concerning the position of the world market. The United Kingdom is the chief consumer of Greek currants but the retention is not applied to its full extent, as regards that market. A special agreement with Greece on July 16, 1926, provided that there shall be left free for import into the United Kingdom a quantity determined on the basis of the average amount taken by the United Kingdom during the three preceding years, plus a margin of 5 per cent to allow for probable increase in consumption.

In order to prevent shipments of improperly prepared and low-grade fruit, the Central Currant Office is also authorized to fix the date for opening shipments to foreign countries. The retained currants are sold locally by the organization either for human consumption or for the manufacture of alcohol and industrial products like currant paste, etc. The Office has also been allowed in recent years to accept fresh currant grapes for immediate use in wine-manufacturing. In order to prevent their being worked into currants, it has paid a premium of about 65 cents a ton for them.

Marketing Under the Central Currant Office.—Under the operations of the Central Currant Office there is a regular open market for dealings in nonretention currants. Brokers, dealers, packers, and exporters are free to carry on their individual operations without interference. The Central Currant Office is not a selling agency monopolizing the whole production and marketing it abroad for its own account. It does not directly intervene between buyer and seller; neither does it attempt to fix prices at which the nonretention currants are sold or resort to any other method of direct regulation. Its price-fixing activities are confined, for the most part, to the indirect effects which it is able to exert. By creating an artificial scarcity of currants for export it enables the growers to obtain higher prices for the exportable part of their crop than they would otherwise obtain. This it does primarily through the retention system. There is, it is true, one exception. In addition to its retention activities, the Central Currant Office buys up, at a price announced at the beginning of the season, any nonretention currants not exported which remain on hand as a drag on the market (see also page 29). But

it does not interfere with growers or exporters in the disposal of the nonretention currants. Both are free to make the best terms they can.

Retention Bills.—For currants delivered to the Central Currant Office the grower or exporter receives a certificate, called the “retention bill.” This is issued by the General Stores which acts as a warehousing agency for the Central Currant Office and which is authorized to receive currants and to issue certificates on its behalf. The exporter must present this retention bill to the customs authorities in order to be permitted to export an amount corresponding to the allowance made on the basis of the retention quota. It is then definitely retired and cannot be reused for the release of further export lots.

Producers are also allowed to deposit with the General Stores currants not suitable for export, such as rain-damaged fruit, fresh currant grapes, and residue from cleaning machines, and for these products the Central Currant Office also issues retention bills.¹⁷ Moreover, in cases when the Central Currant Office buys an unexportable surplus on the open market, it issues certificates upon delivery of the currants which can be exchanged for cash when desired. Retention bills are also issued to growers who deposit their currants voluntarily with the Central Currant Office, and if some of these nonretention currants remain unexported, the growers may still have possession of certificates in such amounts.

Retention bills are necessary for the release of currants for export. They are transferable. Holders of them who make no export sales are permitted to dispose of them on the open market. Similarly, sellers who are able to export their entire stock of currants can purchase the necessary amounts. Unsold retention bills of a former export season may also be used during a subsequent season for the release of exports of the new crop, up to a certain date fixed by the Central Currant Office. Purchase of the retention bills on the open market is the general rule, because they are usually cheaper than the currants. Their value fluctuates, however, in accordance with the foreign demand for currants. If this is strong, the bills are in greater demand from exporters, and owners of them are accordingly able to obtain premiums which would be smaller or non-

¹⁷ Differences in quality of currants are taken into account by expressing the weight of the currants credited on the retention bill in terms of sugar content. That is to say, the number of Venetian pounds (1 Venetian pound = 1.058 pounds) entered on each bill for a given amount of fresh currants is determined by sugar content. Persons who deliver residue receive bills for an amount of currants proportionate to the weight of the sugar content of the residue. Discounts in the weight entered on the retention bill, as compared with the actual weight of the delivered currants, are made in case of currants not suitable for export; i.e., not sufficiently dried or cleaned. For good currants bought or offered for sale to the Central Currant Office the actual weight is represented on the bill rather than the discounted.

existent if the foreign demand for currants were weaker. The bills are also used as security for loans. The Central Currant Office grants loans on them through the medium of the National Bank, at a lower interest rate than that usually charged by the Bank.

Influence of "Intervention" Purchases on Prices.—Broadly speaking the prices received for exported currants are determined by the extent of the foreign demand, interacting upon the supply available for export under the retention system, and hence, so far as the operations of the Central Currant Office are a factor, the retention itself is the basic price determinant. But the amount of the retention having been predetermined, a further factor influencing export prices is the level at which the Central Currant Office sets the intervention price, that is, the price it will pay in the open market for unexportable surpluses during the course of, or at the end of, the season. This is a delicate task. For if the announced price is too high the incentive to find customers abroad and to close sales with them will be diminished. If, on the other hand, it is too low, sales abroad may be consummated at unnecessarily low prices simply because of fear on the part of exporters that they will be left with stocks which they cannot profitably dispose of at home. The task of the Central Currant Office, therefore, is to set its price for such surplus stocks from time to time at a point low enough to assure active export operations, and yet high enough to strengthen the bargaining position of the exporter. In a sense, therefore, the intervention price is in the nature of an indicator of basic price upon which owners of currants are able to count.

The manner in which changes in the general market situation from year to year influence both the open market spot quotations and the prices set by the Central Currant Office at the beginning of the season (late July or early August) for its open market purchases of surplus currants, is shown in table 15.

It will be observed that the Central Currant Office prices of surplus currants declined relatively about the same from 1929 to 1930 as the spot price of currants at Patras (except for one grade which was not a surplus grade). It is also to be noted that the Central Currant Office quotations for the lower grades and the retention bill quotations correspond rather closely with the spot prices of the lower grades at Patras. In view of what has been said above it is reasonable to suppose that this is more than a mere coincidence; that, once the Central Currant Office prices for surplus currants have been set, these tend to fix the minimum limits of spot quotations.

Sanitary and Packing Regulations.—The Central Currant Office is helped in its marketing activities by legislative measures to improve and protect the quality of the produce. Harvesting before a date which is

TABLE 15

SPOT PRICES OF CURRANTS AT PATRAS AND CENTRAL CURRANT OFFICE'S OPENING PRICE OF SURPLUS CURRANTS, SEASONS 1929-30 AND 1930-31

Classification	1929-30	1930-31	
	Cents per pound*	Cents per pound*	Per cent of 1929-30 price
Opening surplus price			
Aighialis and Corinth regions.....	3.87	2.83	73.1
Patras, Elias, Trifylias, and Zante regions.....	3.69	2.70	73.2
Other regions.....	3.56	2.58	72.5
Retention-bill quotations			
Retention bills	3.50	2.46	70.3
Spot prices† at Patras			
Class I:			
Quality A—Region, very fine, f.o.b. Vostizza	6.27-7.13‡	8.36-8.85‡	128.4‡
Quality B—Gulf, choice and fine.....	4.91-4.98	3.69-4.05	78.3
Class II:			
Quality A—Patras sun-dried.....	4.68	2.95-3.32	67.0
Quality B—Amalias.....	4.67	2.70-2.95	60.5
Class III:			
Quality A—Pyrgos.....	4.05	2.64-2.70	65.9
Quality B—Provincials.....	3.90	2.64-2.70	68.5

* Prices per Venetian pound converted to prices per pound avoirdupois by dividing by 1.058.

† Prices on November 30 of each season.

‡ It will be noted that prices of Class I, Quality A currants, do not move in harmony with those of the other grades. As there is no surplus of this grade, the prices it commands are independent of those received for the surplus grades.

Sources of data:

Opening surplus prices are from U. S. Agricultural Commissioner, N. I. Nielsen, Marseilles, France, January 13, 1931. Spot prices at Patras are from United States Consul, Franklin Yeager, Patras.

fixed by the Central Currant Office is forbidden, and regulations exist with reference to sanitation in drying and packing. A well-known objection to Greek currants has been removed by forbidding their being dried on surfaces coated with bovine or other excrement. Packing of currants on untiled or uncemented floors, or by tramping the fruit into containers with the feet is forbidden. Workmen must execute their

duties in sanitary uniforms and must have a doctor's certificate which is viséed every three months. Cleaning machines are to be cleansed only with salt water.

Other measures relate to methods of packing, transportation, inspection, etc. Mixing of different grades is prohibited under severe penalty.¹⁸ Transportation in loose bulk in ships is forbidden. Residue from the cleaning machines must be delivered to the Central Currant Office (in return for retention bills), private sale of such residue being forbidden. Detailed regulations govern the methods of packing and the weight and quality of currants for export. An elaborate system of inspection extends to the vineyards, to the drying and packing plants, and even to the customs service as a final safeguard for the quality of the exports.

For Greece these regulations are of vital significance. The bad reputation which her currants had in the past, owing to unsanitary conditions,¹⁹ was a special handicap and burden to Greek currants because the currants and raisins of competing countries were not thus encumbered. Following complaints from the United Kingdom in 1930 that the currants were not well dried, nor carefully washed and packed, the Greek government, the Central Currant Office, and the Chamber of Commerce, undertook to secure more rigid enforcement of the above regulations by issuing instructions and circulars and by sending out vigilance experts and committees to insure enforcement. The adoption of a governmental trade-mark, to be applied to all exports, with strict controls for quality, has been recently considered.

In addition to regulations designed to safeguard the quality of the exported currants, since March 24, 1920, the government has been empowered to enforce measures to prevent the spread of plant diseases and pests, chiefly phylloxera, at the grower's expense and, if necessary, without his consent.

Technical and Trade Promotional Activities.—Quite apart from the measures described above, however, the Central Currant Office has taken the initiative in many other ways which have proved helpful to the growers. In the matter of technique, for example, marked improvements have been introduced. New methods of drying on special paper or trays

¹⁸ The currants from the islands of Zante and Cephalonia command a premium. In order to protect them from adulteration with lower grades, two decrees have been issued for preventing fraud. Mixed currants are immediately confiscated.

¹⁹ "The conditions in the packing houses in respect to sanitation are in most cases far from satisfactory. . . . For many years all exporters shipping to the United States had to obtain "clean" Consular invoices from the United States Consular representatives. . . . The houses packing for the United States of America are inspected and approved by representatives of the United States Public Health Service." Wheeler, L. A. International trade in dried fruits. U. S. Dept. of Commerce, Bur. Foreign and Dom. Com. Trade Promotion Series No. 44:18. 1927.

with wooden or wire bottoms have been provided to the growers through the credit system of the Central Currant Office. The trellis system is being standardized; the use of fungicides has been made more scientific; experiment stations and agricultural schools have been established. In these, and in other ways as well, the enterprise of the Central Currant Office has asserted itself to the benefit of the industry.

The more important of its activities, however, have been on the side of price maintenance. Besides stabilizing the market by the retention system, efforts have been made to stimulate demand for the product both at home and abroad—primarily for the fresh currant grapes and dried currants, secondarily for wines made therefrom, and finally, for the industrial alcohol into which unused residue may have been converted. Efforts to improve the quality and reputation of the Greek currants, with the government lending its support as indicated above, are a phase of this program. Campaigns to increase demand have been made in Germany, Japan, and the South American countries, especially Argentina. An agency of the Central Currant Office has been established in Shanghai and a sales depot in Milan, Italy. At various expositions in northern European countries, samples of Greek currants have also been shown.

Nor has the Central Currant Office neglected its leading market, the United Kingdom. It has established a branch office in London and through this office has been able to carry on at close quarters an advertising campaign in behalf of the Greek currant trade, having enlisted in its support organizations such as the Anglo-Greek Union. This campaign has been actively under way since September, 1926, and has called for no little ingenuity on the part of its sponsors. It has had to take account of notable changes in consumers' habits as compared with pre-war times, such as the increased tendency on the part of housewives to buy prepared foodstuffs rather than to do their own cooking. Hence marketing efforts have stressed encouragement of the demand for commercial bread and pastries containing currants rather than increased direct use of currants in the household.²⁰

There are about 33,000 bakers in the United Kingdom, and they constitute a powerful factor in extending the demand. The Central Currant Office has accordingly formed a technical advisory baker committee consisting of English master bakers who, in collaboration with the advertising experts of the Central Currant Office, organize annual competitions

²⁰ Mr. Marrone, U. S. Trade Commissioner at Rome, reported on June 8, 1928, that 90 per cent of the bakeries in Liverpool sell bread containing Greek currants and that the President of the National Union of English Bakers had recommended that consumers should use currants because they were sun-dried and not processed chemically.

in various currant foodstuffs. These efforts do not strive so much towards quick results as they do towards a more enduring and permanent level of consumption. Nevertheless, other lines of effort have not been neglected. Publicity has been directed to consumers through the press and through posters and films. Some 30,000 retailers are given annually, for distributing to consumers, advertising material such as recipe books, of which over 2,000,000 have been issued. Since this advertising refers to currants generally and not to Greek currants alone, the Australian currant industry has likewise been in a position to benefit by it.

If the success of the foregoing efforts to stimulate the British demand for Greek currants were to be judged by increased volume of British imports, they would have to be regarded as futile thus far. But that is hardly a fair criterion. Under actual conditions of rapidly increasing competition brought about by the development of the seedless-raisin industry in other countries, the Greek currant industry has been placed in a defensive position in which, but for the efforts of the Central Currant Office, its sales in the United Kingdom might have been much smaller than they have been. In addition to the normal handicap which the advent of such competition would impose, the Greek industry has been confronted with the special handicap resulting from British efforts to favor Empire trade. Not only do South African and Australian industries obtain the benefit of tariff preference in the British market, but they also tend to benefit by the activities of the Empire Marketing Board (see pages 122 to 123) which endeavors to stimulate the purchase of Empire goods by a species of propaganda ("Empire consciousness") which lies outside the range of Greek sales efforts. Moreover, it must be realized that Greece's rivals, both within and outside of the Empire, are striving by similar or by other methods to promote their sales. The advertising of Australian dried fruits by the Director of the Australian Trade Publicity is having a marked effect in the retail trade. Turkey is endeavoring to improve drying and marketing conditions for sultana raisins. Under such conditions the Central Currant Office has indeed been confronted with a difficult task merely by way of striving to maintain for Greek currants something like their former position in the British market.

Efforts to Stabilize Prices Through International Coöperation.—In addition to its direct efforts to strengthen the competitive position of the Greek industry in world markets, the Central Currant Office has striven to bring about world price stabilization and the elimination of price-cutting through the medium of international coöperation.

California growers have repeatedly been accused of disorganizing the raisin and currant market by dumping raisins abroad at low prices. In

1929 the management of the Central Currant Office sent its director, Mr. Simonides, to California to negotiate with the Sun-Maid Raisin Growers Association with a view to seeking an arrangement whereby price-cutting competition would be suppressed. These endeavors did not result in any agreement, because, according to Mr. Simonides, the California growers were not sufficiently organized among themselves and they presented such diverse points of view that discussions could not be carried on with the different groups as representing the whole of the California raisin industry. He predicted, however, that within a year or two California growers would be organized and stated that they would then be disposed to enter into an agreement with the Central Currant Office. With the subsequent formation of the California Raisin Pool the first part of his forecast was borne out. However, the Pool made no attempt to work out any agreement with the Central Currant Office on the suppression of price-cutting.

Promotion of Exports of Fresh Currant Grapes and Wine.—In recent years special efforts have been directed to increasing the total market outlet for fresh currant grapes by encouraging the export of the fresh fruit (undried currants) and of wine made therefrom. In 1929–30 the Greek government and the Central Currant Office made trial shipments of fresh currant grapes to Yugoslavia, Czechoslovakia, and France, which are said to have created a very favorable impression. The Central Currant Office has been coöperating with the Association of Greek Manufacturers regarding the adoption of the most suitable containers for shipments of the fruit in the fresh form. It is generally believed in Greece that exports of fresh currant grapes will eventually exceed 65,000 tons. Assuming the total production of the currant-grape industry to remain as it is, this would mean the removal from the markets of more than 20,000 tons of dried currants, or about $\frac{1}{7}$ of the total currant output. Efforts to promote this phase of the currant-grape industry along with the table-grape industry, have been facilitated by a decree enacted as early as August 10, 1925, creating an autonomous organization for the promotion and improvement of the grape industry. Growers of the larger varieties of currant grapes (varieties which, because of their size, are preferred for consumption in the fresh state) share with growers of table grapes the benefit of this special organization.

Another outlet for fresh (as well as for dried) currants is in the making of wine. A large portion of the currant grapes has been absorbed during recent years in wine-making for foreign and home consumption; and as the Central Currant Office can accept fresh as well as dried currants, a part of its activities has been to aid in the market disposal of

such wine. To that end it acts in close coöperation with the "Board for the Protection of Wine Production and the Regulation of Wine Trade," a special board created by a decree on January 12, 1927. For a time this organization met with marked success in finding foreign outlets for this wine, especially in the French market where wine from Greek currants was used for mixing purposes. On the average, about 38,000 tons of wines made from fresh currants were shipped annually into France to be used there mainly for mixing purposes in wine-manufacturing. This quantity represented an annual average of about 16,000 tons of dried currants. In January, 1930, however, a law was passed in France prohibiting the admixture of domestic wines with imported wines, which eliminated the French market as an outlet for the Greek product. This was a real blow, and, of course, led to protests by the Greek government, thus far, apparently, without result. The Greek exports of wine to France had amounted to about 38 per cent of her total wine exports, and the international wine market was such that these exports could not easily be diverted to other countries. Italy and Germany were the next two important customers, using Greek wines mainly for mixing with their domestic product; but they could not be expected to absorb the surplus made available by the French restrictions.

Criticisms of the Central Currant Office.—As might be expected, many objections and criticisms have been made of the activities of the Central Currant Office. One of the most persistent of such objections is that it participates in the profits and losses of the wine-manufacturing industry. The objections along this line have been particularly bitter since the establishment of the French embargo against Greek currant wine. The losses entailed by the Greek currant industry, as a result of that embargo, will of course reduce the financial power of the Central Currant Office in backing the dried-currant producer. It should be borne in mind, however, that as far as the French embargo is concerned the Central Currant Office is simply a victim of circumstances brought about by factors over which it has no control. It has also been severely criticized because of the levies and special taxes that have been imposed from time to time on currant growers and exporters.

The main objection raised against the Central Currant Office in Greece is based on the operation of its price-maintenance policy. It is claimed that the enforcement of large retention quotas has raised prices to such high artificial levels that export sales have been seriously curtailed and the competition of foreign producers proportionately stimulated, the contention being that more elasticity of retention quotas would have permitted greater exports. No attempt will be made in this

report to analyze the relevancy or consistency of these local objections. From the purely disinterested point of view of agricultural economics, however, one might point out that the activities of the Central Currant Office come into conflict with certain broad principles of land utilization and freedom of action, and as a result, those immediately involved might justly be entitled to further consideration. One authority²¹ has pointed out that, considered on this basis, objection might be made against the principles involved in the policy of the Central Currant Office by the following groups: (1) the Greek population as a whole, whose national income may suffer as a result of land not being used in the most efficient and economic manner; (2) the growers of wine grapes, who have suffered from the dumping of currants into the wine industry; and (3) those growers of currants who would have survived without government intervention in the industry and who, as a result, are now compelled to carry the burden of uneconomic production by others.

Apart from any possible disturbances in distribution, the Greek currant valorization scheme has undoubtedly been a barrier to the improvement and diversification of agriculture as a whole. Moreover, it is obviously disadvantageous for the Greek currant industry to be compelled to carry the dead weight of submarginal producers, who are now able to dump their low-grade produce into the warehouse of the Central Currant Office when they would have been eliminated under conditions of free competition. The low-grade currant is more affected at present by the sultana-raisin competition than the high-grade currant. The more that sultanas replace currants in the markets of the world the heavier will be this deadweight of submarginal producers, and the sooner the Central Currant Office will have to change its policy in regard to inducing the grower to improve the quality of his output.

The main objection against the rationalization and stabilization methods now employed by the Central Currant Office seems to be that it is trying to bring about an improvement of quality by legislative measures rather than by exposing the low grade and submarginal grower to competition which would eventually force him to improve his product or to cease production. The Central Currant Office will not be able to make currant growing a profitable business in Greece until the submarginal and low-grade producer is forced out.

²¹ Kipps, J. The Greek currant trade. *Econ. Hist. (supplement of the Economic Journal)* 2(5):152. 1930.

THE GREEK RAISIN INDUSTRY

Most of the Greek raisin output (as distinguished from currants) consists of sultana raisins, produced in the Candia district of Crete and also on the Greek mainland, particularly in the Peloponnesus. The rosakia, made from a light-colored seeded grape similar to the Turkish Rosakia, is also produced to a limited and decreasing extent. This variety is little grown in California and is known here as Dattier de Beirut.

TABLE 16

GREEK* PRODUCTION AND EXPORTS OF RAISINS, FOR CROP YEARS,
AVERAGE 1909-1913, ANNUAL 1920-1933

Year harvested	Production	Exports†	Year harvested	Production	Exports‡
	<i>short tons</i>	<i>short tons</i>		<i>short tons</i>	<i>short tons</i>
Average:			Annual (continued)		
1909-1913.....	18,000	12,508‡	1926.....	20,000	14,180
Annual:			1927.....	22,300	16,304
1920.....	13,000	8,789	1928.....	22,500	16,651
1921.....	22,000	16,195	1929.....	22,000	15,433
1922.....	21,000	15,085	1930.....	21,500	14,315
1923.....	18,000	12,604	1931.....	21,500	14,334
1924.....	22,500	16,761	1932.....	27,000	19,800§
1925.....	21,500	15,712	1933.....	29,000§	—

* Including Crete.

† Exports are for years beginning August 1.

‡ Average for Greece proper for the calendar years 1907-1911 plus an average for Crete for the calendar years 1908-1912.

§ Preliminary estimate subject to revision.

Sources of data:

Average production 1909-1913 is an estimate by S. W. Shear based upon the export data given and is believed to be fairly comparable with Nielsen's post-war estimates. Average exports 1909-1913 are from official data for Greece and Crete, which was not under Greek rule until 1912. Years 1920-1933 estimates of U. S. Agricultural Commissioner N. I. Nielsen, Marseilles, France. For currant data see: Federal-State Market News Service, Foreign Raisin Reports. (Mimeo.) Sacramento, California.

PRODUCTION²² TREND

The most accurate indication of the growth of the commercial raisin industry of Greece (including Crete²³) is exports, which averaged about 12,500 tons in pre-war years and from 14,000 to 16,000 tons in recent years (see table 16). Exports from Crete alone, for the calendar years 1908-1912, averaged 7,755 tons with normal production probably of

²² Greek raisin statistics usually are designated as "sultanas" but apparently at times include rosakias as well as sultanas for the government sometimes calls any dried grape that is not a currant a sultana, according to J. L. Simpson in his unpublished report in 1923 on the "Greek Currant Situation."

²³ Crete did not come under Greek control until 1912 and so pre-war data for Greece exclude Crete unless otherwise stated.

about 8,000 or 9,000 tons, practically all of which consisted of rosakias.²⁴ Exports from Greece proper averaged about 5,000 tons for the years 1907–1911. Apparently about half of these were sultanas. From the meager and questionable data available²⁵ it appears that total production was probably not much greater than exports.

Contrary to general opinion the best data available on the output of raisins in Greece and Crete (table 16) show but little increase during the past decade.²⁶ However, Nielsen²⁷ states that it seems probable that there actually has been an increase in the production of the sultana variety in recent years, as the trade believes, particularly in Crete where extensive plantings by Greek refugees from Turkey are said to have been made since the World War. The output of sultana raisins has apparently

²⁴ The British consul reported that the production of sultana raisins in Crete in 1911 was estimated at only about 125 long tons, but that this variety had proved profitable and its production and exports were on the increase. Export data and production estimates are from: *Statistique du Rendement Agricole des Nouvelles Provinces 1914* (production for 1914 reported as 15,200,055 pounds), and from the *Annual Series of British Diplomatic and Consular Reports on Trade, Shipping, and Agriculture of Crete*. (No. 4982:7, 1911; No. 4238:22, 1907; No. 4776:13, 1910; and No. 5393:7, 13, 1914.)

²⁵ *Annual Series of British Diplomatic and Consular Reports on Trade of Consular Districts of Patras, Greece*, No. 5297:10, 1913; No. 4870:10, 1911; No. 5065:12, 1913; and No. 4649:9, 1910. These Consular Reports indicate normal production of the sultana variety to have been about 3,000 tons, but give no data on other varieties.

Recensement Agricole de la Grece (1911) reports approximately 7,500 acres of grapes designated as Sultanas but probably including all other raisin grapes, with a production of 58,355 quintals and a value of 4,372,101 francs. From the secondary sources at hand it is impossible to tell whether the quintal used is the Greek quintal of 123.4576 pounds or the metric quintal of 220.46 pounds avoirdupois. The smaller conversion factor would indicate production of about 7.2 million pounds, the larger factor about 12.8 million pounds. The *Austria-Hungary Consular Report (on Griechland Wirtschaftliche Verhältnisse, 1913, p. 24)* states that raisin production in the Peloponnesus for 1913 was 5,958,699 Venetian pounds or approximately 6.3 million pounds avoirdupois and also that the 1912 crop was about the same size. E. J. Tsouderos (in *Le Relèvement Économique de la Grece, 1919, p. 135*) states that the total production of raisins (probably all raisins although designated as sultanas) in all Greece, including Crete, in 1914 was 10,145,000 okes, or approximately 28.6 million pounds avoirdupois, with a value of 3,257,267 drachmas. The new provinces, the chief raisin-producing area of which was in Crete, are officially reported as producing 5,841,260 okes or approximately 16.5 million pounds. By subtraction the production of old Greece, excluding Crete, apparently was estimated at about 14.1 million pounds in 1914. Unfortunately the official Greek acreage and production estimates seem to be of somewhat questionable accuracy.

²⁶ The production data in table 16 show the same absence of trend since they are estimates based upon exports with an allowance of approximately 6,000 tons for home consumption. These estimates agree rather closely with trade estimates of recent years.

²⁷ Nielsen, N. I. *United States Agricultural Commissioner, Marseilles, France*, letter of July 28, 1932. Since this manuscript was submitted for publication the Marseilles office has been discontinued and the Agricultural Commissioner is now located at the American Embassy in Paris, France.

[Great Britain] *Imperial Economic Committee. Report on the marketing and preparing for market of foodstuffs produced in the overseas parts of the Empire, Third Report—Fruit, p. 171. 1926.*

increased at a much faster rate than total raisin production as a result of Sultana vines replacing many Rosakias. He estimates that Sultanas now constitute more than 75 per cent of the total raisin output of Greece and Crete.

EXPORT MARKETS

Total exports of all types of raisins from Greece during the crop years 1926-1930 averaged 31,275,000 pounds annually (see table 17), going mostly to Italy, Germany, and the United Kingdom. It should be borne

TABLE 17

EXPORTS OF SULTANA AND ROSAKIA RAISINS FROM GREECE BY COUNTRIES OF
DESTINATION, AVERAGE 1920-1924, ANNUAL 1925-1931
(Years beginning September 1)

Destination	Average 1920-1924	1925	1926	1927	1928	1929*	1930*	1931*
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
United Kingdom.....	8,670	7,475	7,172	6,166	7,970	7,886	6,602	7,846
Italy.....	5,228	12,439	11,314	12,200	12,791	10,552	11,926	11,040
Germany.....	3,836	5,178	6,933	7,727	8,741	8,160	7,500	7,772
United States.....	1,325	143	106	157	172	16	—	—
Netherlands.....	2,976	2,169	1,814	3,999	2,467	1,846	1,218	1,122
Egypt.....	1,745	2,302	481	377	778	176	28	138
France.....	1,100	508	179	807	600	52	200	174
Jugoslavia.....	307	—†	—	—	—	138	176	288
Norway.....	787	25	—	—	—	—	—	—
Turkey.....	146	—	—	—	—	—	—	—
Belgium.....	79	405	251	778	454	—	—	—
Other countries....	1,664	336	1,283	785	375	2,040	980	288
Total.....	27,863	30,980	29,533	32,996	34,348	30,866	28,630	28,668

* Crop year beginning August 1.

† Dashes indicate data not available for individual countries. Any exports to these countries are included in "other countries."

Sources of data:

1920-1928: from Bulletin Mensuel du Commerce Special de la Grece, August and December.

1929-1931: from U. S. Agricultural Commissioner, N. I. Nielsen, Marseilles, France. (See: Federal-State Market News Service, Foreign Raisin Report No. 39: 14. March, 1933. [Mimeo.] Sacramento, California.)

in mind that much of the trade with Italy consists of transit goods going to central Europe, especially to Germany, via Trieste. Obviously then Germany is the most important export outlet for Greek raisins. As the Greek sultana raisin is similar in its characteristics to the Turkish sultana it shares the decided preference that is given by German consumers to the latter over bleached California sultanas, even though the prices of California sultanas may be slightly lower. The increasing German demand for sultanas generally, and for unbleached sultanas in particular, seems to favor the Greek raisin industry.

GOVERNMENT ASSISTANCE

The Greek raisin industry has not been the recipient of special legislative aid, although a number of minor enactments have presumably been helpful to the industry, such as laws advancing credit to farmers, regulations concerning drying methods, and the establishment of a board for the promotion of exports of fresh grapes.

THE SMYRNA RAISIN INDUSTRY^{28, 29}

Fresh grapes are grown throughout both European and Asiatic Turkey from which raisins are produced for local consumption in several regions. However, no data are available concerning the production of raisins in these noncommercial areas. The commercial production of raisins for export is confined almost exclusively to the Smyrna (Izmir) region on a strip of land in the coastal districts about 75 miles long and about 75 miles wide at its maximum. Fairly accurate data on production and export of raisins from this district are available from trade sources for a good many years.

Three principal kinds of raisins are produced in the Smyrna raisin belt: sultanas (the Thompson Seedless of California); rosakias (Eleme, the seeded white Dattier de Beirut in California); and the Turkish Black. The last two varieties are now used mainly for wine-making or for consumption in the fresh state. At present, about 98 per cent of the total Smyrna raisin output is sultanas,³⁰ which constitute practically all of the export movement.³¹

²⁸ Shortly before his death in December, 1932, the manuscript of this chapter was reviewed by R. L. Nougaret, Viticulturist in the Turkish Institute of Viticulture and formerly Viticulturist in the California State Department of Agriculture. The few changes he suggested in the manuscript have been incorporated in the chapter as it now stands.

²⁹ General sources used for this section in addition to those given in specific footnotes:

Giraud, D. J., and Co. Smyrna, Turkey. Smyrna raisins and figs. 24 p. Smyrna. 1924.

Rizzo. La législation Turquie; lois promulguées etc., Editions Rizzo, Constantinople. (This collection represents a French translation of Turkish legislation. A survey of legislative documents in Turkish language was made in Washington, D. C.)

³⁰ Courdoglou states that only 10 per cent of the total fresh sultana output is consumed fresh, while 90 per cent is dried. Courdoglou, Faik. La Turquie économique. p. 81. Librairie de l'Institut, Anvers. 1928.

³¹ For a discussion of the kind of raisin grapes produced in the different producing areas of Smyrna see Nougaret, R. L. The Smyrna raisin industry. California Grower 5(3):12-13. March, 1933.

PRODUCTION TREND

Raisins have been grown in Smyrna for many years. Eisen³² pointed out in 1890 that the production of Smyrna raisins and dried grapes had increased enormously during the preceding years (see table 18). He also stated that if Smyrna raisin production that year was as high as esti-

TABLE 18

RAISIN PRODUCTION* OF SMYRNA DISTRICT, SPECIFIED YEARS,
1844-1884, ANNUAL 1903-1933

Year harvested	Production	Year harvested	Production	Year harvested	Production
	<i>tons†</i>		<i>tons†</i>		<i>tons†</i>
1844.....	6,000 to 8,000	1908.....	62,800	1921.....	37,400
1868.....	19,000	1909.....	60,200	1922.....	41,200
1871.....	48,000	1910.....	49,100‡	1923.....	40,400
1872.....	31,000	1911.....	24,500	1924.....	54,300
1879.....	75,000	1912.....	60,200	1925.....	33,100
1881.....	49,000	1913.....	68,900	1926.....	39,100
1884.....	95,000	1914.....	57,100	1927.....	52,900
		1915.....	50,700	1928.....	50,200
1903.....	76,200	1916.....	38,100	1929.....	56,200
1904.....	39,700	1917.....	31,700	1930.....	41,500
1905.....	60,300	1918.....	28,500	1931.....	31,000
1906.....	30,400	1919.....	33,600	1932.....	70,000
1907.....	47,600	1920.....	20,300	1933§.....	62,500

* Because of conflicting data from different sources or different designations for the same data, one cannot be sure whether data for years 1903-1922 represent exports or total production, and, if exports, what kind of a year is given—calendar year or crop year. The source is quoted as the Smyrna Chamber of Commerce and the data designated as *raisin exports* with kind of year not stated in: Bey, D. S. The Smyrna fig and raisin industry. *Levant Trade Review* 16 (1): 17-21. January, 1928. The same data are quoted as from the Smyrna Chamber of Commerce in: *Annuaire de Statistique* Vol. 1, 1928 (Official Government Statistics of Turkey), and by U. S. Trade Commissioner Gillespie in 1925 as *raisin production*.

† Kind of tons not specified by Eisen for years 1844-1884 but probably short tons. Data for 1903 to date in short tons.

‡ The author has been unable to reconcile conflicting data on Smyrna raisin production for 1910 from different sources. Data from other sources which appear fairly reliable indicate production to have been unprecedentedly small in 1910, amounting to about 20,000 to 21,000 tons only. See data (21,200 short tons) quoted by Jacob Caramin and Fils of Smyrna. *Levant Trade Review* 4 (1): 109. June, 1914. Also see data (17,600 short tons) quoted by British Consul at Smyrna in *Board of Trade Journal* 76: 378. February 15, 1912.

§ Preliminary estimate, subject to revision.

Sources of data:

1844-1884: from data compiled from consular reports by: Eisen, Gustav. The raisin industry. H. S. Crocker and Company, San Francisco. 1890.

1903-1925: furnished by Smyrna Chamber of Commerce in *Annuaire Statistique*, 1928. Vol. 1. 1926-1929: reported by U. S. Consuls.

1930-1933: from U. S. Agricultural Commissioner, N. I. Nielsen, Marseilles, France.

mated, i.e., 100,000 tons, it would be absurd to think that only one-tenth were of the sultana variety, which was known to be one of the most important raisins of the district. In his opinion not less than one-third of the whole raisin crop in 1890 consisted of sultanas. This seems to imply that a shift had been taking place in the varieties of raisins grown and that at that time there was a decided trend toward the producing of sul-

³² Eisen, Gustav. The raisin industry. H. S. Crocker and Co., San Francisco, 1890.

tanais. The fact that growers as early as 1890 were devoting increased attention to seedless types indicates the trend in consumer preference near the end of the last century.

Table 19 shows the marked upward trend in the commercial output of Smyrna sultana raisins from 1900 to 1910. Exports of sultanais from Smyrna during the five years, 1900–1904, averaged 34,700 tons, or approximately 70 per cent of the total movement of raisins from that port.

TABLE 19
EXPORTS OF RAISINS BY KINDS FROM PORT OF SMYRNA,
1900–1904 AND 1906–1910

Year*	Total, all varieties	Sultana (in sacks and cases)	Black (in bags)	Rosakias (in small bags)	Beylerdje (in sacks)
	<i>short tons</i> †	<i>short tons</i> †	<i>short tons</i> †	<i>short tons</i> †	<i>short tons</i> †
Averages:					
1900–1904	49,400	34,700	8,600	4,800	1,300
1906–1910	50,400	43,500	4,800	1,700	400
Annual:					
1900	33,000	18,100	8,200	5,100	1,600
1901	44,000	27,100	8,200	7,300	1,400
1902	47,600	34,800	7,600	3,800	1,400
1903	67,400	52,600	8,700	4,600	1,500
1904	54,700	41,000	10,100	3,200	400
1906	50,800	39,700	7,100	2,600	1,400
1907	46,700	41,500	3,600	1,500	100
1908	51,200	45,300	3,500	2,300	100
1909	63,000	58,100	3,300	1,500	100
1910	40,300	32,800	6,700	700	100

* Kind of year not indicated in Consular Reports from which data are drawn.

† Kind of tons not indicated in Consular Reports from which drawn; hence data were converted to nearest hundred short tons on supposition that metric tons were shown in Consular Reports.

Source of data:

Compiled from British Consular Reports of 1904, 1905, 1908, and 1910–11 on the Trade of the Consular District of Smyrna, Turkey.

In the five years, 1906–1910, however, sultana exports had increased to 43,500 tons and constituted 86 per cent of the total of raisin exports from Smyrna.

The value of table 18 lies in the fact that it throws some light upon the potentialities of the Smyrna region, under improved cultivation, as a competitor for the world's raisin market. If, under less scientific cultivation methods and other handicaps, almost 100,000 tons of raisins were produced in Smyrna around 1890, it is safe to say that the former quantities could be produced again, especially since there is no sign of soil exhaustion even though growers do not use artificial fertilizers.³³

³³ R. L. Nougaret's comment on this sentence was "true." British consular reports for the Smyrna district also concur in the fact that there is much land adapted to raisin expansion in the Smyrna district. See also page 43.

Acreage.—The production figures in table 18 do not indicate the changes that have taken place in the raisin-grape acreage of Smyrna. Courdoglou,³⁴ a Turkish author, places the total area under vines for 1924 in what he calls the "economic region of Smyrna" at about 328,680 acres, of which 96,580 acres were in the province of Smyrna and 52,300 acres in that of Magnesia. The acreage in these two provinces, at least, is assumed to be entirely Sultanas. He adds that the areas devoted to raisins in the entire Smyrna economic region increased by at least 25 per cent between 1924 and 1928. This would place the Sultana area of the province of Smyrna in 1928 at 121,000 acres and that of Magnesia at 64,000 acres. In addition, increases probably took place in the other provinces³⁵ as well. A statement early in 1931 by a second authority³⁶ indicates that in spite of the unsatisfactory economic situation, the acreage devoted to the cultivation of vineyards in the Smyrna region is increasing yearly and under normal circumstances the yield is expected to increase correspondingly every year. The Smyrna Chamber of Commerce estimates that there were about 126,000 acres in vineyards in the Smyrna district in 1930, which is about 5,000 acres more than that given by Courdoglou in 1928.

Spells of unfavorable weather, which occurred rather often during the drying and growing season in several recent years, may partially account for the fact that this increase in acreage does not show up in the production figures. It must also be borne in mind that a great many acres of new plantings have not yet come into bearing. Lower yields per unit may also have resulted from other factors. From 1911 to 1922, for example, Turkey was at war continually. The resulting losses in man power are still influential in the raisin situation. In the case of raisin growing a man cannot be replaced by machinery. Many vineyards, therefore, did not receive the attention necessary to guarantee high yields. The productivity of many old plantings undoubtedly suffered from continuous neglect or devastation during the Greek invasion (1919–1922), which turned the entire Smyrna raisin region into a battlefield. It is also quite possible that the subsequent expulsion of the highly qualified class of growers who happened to be of Greek nationality, was detrimental to raisin production.

The Turkish government after the Greek invasion placed about 20,000 acres of raisin land under the administration of the "Abandoned Property Commission" to be settled by the government with repatriated

³⁴ Courdoglou, Faik. *La Turquie economique*, p. 82. Librairie de l'Institut, Anvers, 1928.

³⁵ Aiden, Mughla, Balikesri, Denizli, Burdur, and Sparta.

³⁶ Report from United States Consulate, Smyrna, dated January 5, 1931.

Turks. Many of the repatriated Turks, who have to date taken the place of the expelled Greeks under this arrangement, were not thoroughly familiar with viticulture, except those coming from Crete.³⁷ Most of them are said to have taken more to tobacco growing since they came mainly from tobacco-producing areas in western Thrace. In the Karaburun peninsula head at the entrance to the Gulf of Smyrna, which produces the finest type of sultana raisin grown in Smyrna, 35 per cent of the raisin acreage is said to have been dedicated to other crops, mainly to tobacco.³⁸ Some acreage losses of this kind undoubtedly have been offset by increased plantings elsewhere.

An additional factor accounting for the low yields per unit obtained in the Smyrna raisin industry may be found in the general disinclination of the growers to adopt new methods of cultivation.³⁹ This characteristic has been accentuated by the conditions which prevailed under the old Ottoman Empire government.⁴⁰ It is believed, however, that the energetic and enterprising Kemalistic republican form of government will succeed in removing many handicaps of the raisin industry by means of social evolution and in increasing the yield per unit by the introduction of improved methods. Turkey undoubtedly could greatly expand her raisin-growing industry as far as available land is concerned. For example, the pre-war province of Aiden, to which the Smyrna region belonged, had in 1909–10 around 258,066 acres, or 17.4 per cent of its cultivated acreage under vines. Only 10.5 per cent of the total acreage of the province, however, was actually under cultivation while 25.7 per cent was still available to cultivation.⁴¹ Even assuming

³⁷ The various sources on this question mention that on the whole, 800,000 to 1,000,000 Turks were repatriated from Greece. Undoubtedly there were among them a considerable number of men skilled in viticulture. These, having acquired their knowledge under somewhat more liberal conditions than prevailed in ancient Turkey, were expected to constitute an important factor for the improvement of raisin growing in Smyrna. At least they could substitute for the expelled Greeks.

³⁸ Ravndal, G. Bie. Turkey: Commercial and industrial handbook. U. S. Dept. Com. Bur. of Foreign and Dom. Com. Trade Promotion Series No. 28. 1926.

³⁹ "It is one of the anomalies of the character of the native that, though he is shrewd and calculating in all matters financial, he will sacrifice, as a rule, his own pecuniary advantage rather than break with tradition and custom." Mears, Eliot G., *et al.* Modern Turkey; a politico-economic interpretation, 1908–1923. p. 297. The Macmillan Company, New York. 1924.

⁴⁰ Bitter experience under the old régime has taught the peasant in Turkey the uselessness of producing more than is absolutely necessary for his living and for the payment of taxes, and his tendency is always to remain the same or even to retrograde. Ravndal, G. Bie. Turkey; commercial and industrial handbook. U. S. Dept. Com. Bur. of Foreign and Dom. Com. Trade Promotion Series No. 28. 1926.

⁴¹ Mears, Eliot G., *et al.* Modern Turkey; a politico-economic interpretation, 1908–1923, p. 284. The Macmillan Company, New York. 1924. Based on "Résumé of agricultural conditions in Turkey, Asia, and Africa, 1912." Unfortunately the "Compte Rendu du Recensement Agricole de 1927" does not show any figures on the acreage under vines, for comparison.

TABLE 20

RAISIN EXPORTS FROM TURKEY BY COUNTRY OF DESTINATION, CALENDAR YEARS,
AVERAGE 1909-1911, ANNUAL 1923-1932

Destination	Average 1909-1911*	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
United Kingdom.....	39,488	43,465	33,416	11,856	26,242	7,353	31,989	26,080	15,095	10,648	43,532
Netherlands.....	11,068	9,853	33,634	9,233	6,738	7,478	14,383	23,682	15,567	6,660	18,012
Germany.....	14,413	2,461	21,160	17,416	20,527	18,212	51,418	31,688	32,679	20,150	18,951
Italy.....	878	6,330	8,323	7,552	6,021	3,140	14,825	13,512	13,839	5,842	7,388
Belgium.....	2,990	4,450	3,799	2,770	1,912	1,397	3,097	2,950	3,542	2,740	7,416
United States.....	609	1,406	2,726	1,041	391	1,158	1,356	1,719	775	245	578
Egypt.....	2,710	1,224	954	†	603	769	1,281	1,337	1,274	567	1,001
France.....	8,836	641	351	†	494	655	681	854	1,340	758	1,722
Switzerland.....	†	†	4	0	21	†	5	137	†	†	†
Austria§.....	14,056§	†	†	0	74	248	125	63	11	†	†
Czechoslovakia.....	†	†	0	0	0	5	†	9	†	†	†
Poland.....	†	†	†	†	0	†	†	†	†	†	†
Other countries.....	6,563	2,920	2,296	2,643	977	1,233	3,706	3,285	3,732	536	1,156
Total.....	101,611	72,750	106,663	52,511	64,000	41,698	122,566	105,266	87,854	48,146	99,756

* Years beginning March 14.

† If any, included with "other countries."

‡ Less than 500 pounds.

§ Austria-Hungary in pre-war years.

Sources of data:

1909-1911: from Statistique du Commerce Extérieur de L'Empire Ottoman.

1923-1926: from Die Wirtschaft des Auslandes, p. 644. Berlin, 1928 [quoting from original Turkish sources "Lenesine Mahsus Ticaretü Haricîye İstatistikî" 1339 (1924), 1340 (1925 and 1926).]

1927-1928: from Annual Statistics, Turkish Customs.

1929: from monthly statistics of Turkish customs.

1930: preliminary data from Consular report of January 5, 1931, quoting figures furnished by Smyrna Chamber of Commerce.

1931-1932: from report of American consul, W. Perry George, January 12, 1933, for Smyrna (Izmir) district only.

that only a part of the uncultivated land in that region should be used for vines, the vineyard area could probably be increased considerably. Another region for expansion is found in the Province of Trapizond, where conditions are favorable and where sea transportation is easily obtained through the port of Trapizond and the Black Sea. The government, however, seems to be more interested in developing nut and citrus-fruit cultivation in the latter area.

TABLE 21

IMPORTS FROM TURKEY BY THE PRINCIPAL IMPORTING COUNTRIES, CALENDAR YEARS, AVERAGE 1909-1913, ANNUAL 1923-1931

Importing country	Average 1909-13	1923	1924	1925	1926	1927	1928	1929	1930	1931
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
United Kingdom	41,537	46,053	29,905	12,502	31,035	24,239	19,393	25,254	15,805	11,878
Netherlands.....	9,354	6,931	10,966	4,389	3,652	7,289	7,658	12,811	13,773	5,317
Germany.....	33,761	5,536	37,845	32,665	32,678	33,646	36,828	39,388	41,577	30,143
Italy.....	1,380	50	195	1,414	421	1,638	2,159	—*	—	—
Belgium.....	2,994	1,437	3,402	5,315	2,106	2,474	3,236	3,588	2,431	1,532
United States.....	1,445	1,534	1,914	1,278	394	626	484	621	736	395
Egypt.....	—	441	1,084	916	816	1,011	1,009	1,281	1,407	741
France.....	7,025	1,136	1,418	1,394	511	766	713	—	1,430	1,178
Switzerland.....	419	331	305	225	325	678	436	418	831	791
Austria.....	—	152	186	231	519	1,067	—	—	3,006	2,813
Czechoslovakia ..	—	66	416	236	704	1,385	1,527	1,938	1,845	—
Poland.....	—	—	565	551	267	775	606	530	137	—
Canada.....	1,782	1,046	1,185	332	561	666	576	548	227	18
Total.....	99,697	64,713	89,336	61,477	74,094	76,322	72,475	86,402	58,355	54,806

* Dashes indicate data not available.

Source of data: Compiled from the official trade statistics of the various countries.

TREND OF EXPORTS

The available statistics on exports of raisins from Turkey indicate that shipments since the War have been below those of pre-war years. During the past five years, 1926-1930, for example, exports have averaged 84,277,000 pounds annually as compared with an average of 101,-611,000 pounds annually during the three years 1909 to 1911 (table 20). Before the War the United Kingdom was the main export outlet. Since the War, however, Germany has replaced the United Kingdom as the most important purchaser. However, Germany buys mostly lower-grade raisins. In fact, Continental Europe now takes the bulk of the Turkish raisin exports.

When the statistics on raisin exports from Turkey are compared with those of the various countries concerned giving imports for consumption, several interesting facts are brought to light (table 21). The first

is that the Turkish export statistics by countries of destination do not give an accurate picture of the relative importance of the different raisin export markets. Official German statistics show average annual imports of raisins for the years 1926-1930 about 6,000,000 pounds greater than Turkish statistics report as exported directly to Germany (30,905,000 pounds as compared with 36,823,000). The bulk of the raisins indicated in the Turkish statistics as being exported to Italy in reality represent a transit trade via Trieste and Genoa for other European markets, especially to Germany. The Netherlands, like Italy, also figures as an important base for such transit trade. A further glance at the Turkish export statistics would seem to indicate that such markets as Poland and Czechoslovakia are of practically no importance as export outlets, but a glance at the import statistics of those countries immediately reveals that they take in the aggregate around 2,000,000 pounds of raisins from Turkey.

There has been some objection against Turkish raisins in Great Britain in recent years on the grounds that they were not being processed under sanitary conditions.⁴² This fact, together with the increasing competition from California and from British Empire raisins (the latter imported under preferential rates of duty) as well as from somewhat improved sultan^{as}⁴³ and currants from Greece, has caused the decline in Smyrna sales on the British market. This decline, however, has been offset by increased sales to the Continent, where British Empire raisins have no preference and where the Greek currant is not so much appreciated, probably because of its characteristics and high price. Moreover, Germany has granted a preferential duty rate to Turkish raisins, which has materially increased sales in that market.

The Smyrna sultana is said to be one of the best raisins of its kind entering into international trade. This is partly due to the fact that it

⁴² "On account of the unsanitary conditions prevailing in the raisin-packing industry of Smyrna, a system of inspection was established several years ago by the American Consulate at Smyrna for the purpose of insuring, so far as possible, sanitary treatment of raisins intended for exports to the United States. Before being put on the list of exporters qualified to ship to the United States, the packer has to satisfy an inspecting physician appointed by the Consul General at Smyrna as to the health and cleanliness of his employees and the sanitary conditions of his plant. If the conditions are fulfilled a 'clean' invoice is issued by the Consulate." This particular inspection is still carried on at present. (Wheeler, L. A. International trade in dried fruits. U. S. Dept. Com. Bur. of Foreign and Dom. Com. Trade Promotion Series No. 44. 1927.)

⁴³ The growing of Sultan^{as}, especially in Crete, has been developed with very good results by the Greek farmers expelled from Smyrna and repatriated in Greece. "The British dealers seem to display a certain favorable attitude toward Greek produce. This may be attributed to the fact that the majority of the business men in the dried-fruit trade in British ports are Greek." (From: United States Consular Report, January 5, 1931.)

is light in color without bleaching with sulfur dioxide.⁴⁴ Its price, moreover, is usually lower than that of other raisins. Should Turkey succeed in improving processing methods so as to be able to place on the world market an attractively packed product, it may happen that the Smyrna sultana will become a much more serious competitor than at present.

GOVERNMENT ASSISTANCE

Pre-War Situation of Turkish Agriculture.—Before the World War, Turkish agriculture labored under the handicap of a corrupt and most inefficient government, with lack of security of person or property. Land tenure and mortgage laws, the taxation and credit system, lack of education, and primitive cultural, marketing and transportation methods were all serious obstacles to the progress of the raisin industry. Moreover, agriculture was injured by the War, particularly in the Smyrna raisin-producing area, by the Greek occupation from 1919 to 1922.

Constructive Republican Agricultural Policy Since 1923.—According to American standards, present agricultural and general political and economic conditions in Turkey leave room for much improvement. However, since 1923 the new Turkish republican government, as a result of a constructive policy towards agriculture, has advanced the industry considerably. The abolition of the old system of farming out the collection of taxes, formerly the main obstacle to agricultural progress, was one of the first acts of the new government. Tax rates were also reduced from 12½ per cent of the produce to 8 per cent of the peasant-farmer's income. Various educational measures have also been adopted which are improving agricultural conditions—slowly, to be sure, for extension of agricultural knowledge is very difficult since only a few peasants know how to read or write.

Legislative provisions for establishing credit coöperatives have resulted in the establishment of numerous local agricultural organizations of this kind that also engage in coöperative selling and buying. A vineyardist's bank established in 1926 in Magnesia, one of the important raisin-producing provinces, not only extends credit to members, but also sells raisins to Smyrna exporters. Permission to cut wood for farm use in the state forests of one province has been of considerable help to raisin growers in providing material for buildings, posts, and the manufacture of raisin boxes. Free distribution of phylloxera-resistant vine stocks for planting has been provided since December, 1925, and state

⁴⁴ Nougaret, R. L., writes (November, 1932) that Smyrna raisins acquire their light color and characteristic texture and flavor by dipping in potash solution and an olive-oil emulsion in the bleaching process. No sulfur dioxide is used by the grower although occasionally the exporter may use it.

land has been made available to provincial and municipal governments for the establishment of nurseries. Importation free of duty of materials needed in the raisin industry has also been arranged for in recent years.

Beginning of Improved Transportation.—Improved transportation by motor trucks is also being encouraged in inland provinces by building roads, by the opening of government motor-repair shops, and by the exemption of gasoline for agricultural purposes from import duties and consumption taxes. However, Nougaret⁴⁵ states that aside from the very few highways that serve as main arteries of communication, the country roads of Turkey are so narrow and poor that raisins are still largely transported from vineyards to Smyrna on the backs of donkeys and camels. This mode of conveyance accounts for the use of burlap sacks of about 300 pounds as the usual packing container. Measures to improve and cheapen motor transport, together with the promotional activities of the Anatolian Railway Company, should result in improved marketing and transportation facilities and may possibly bring about the opening of new raisin-producing areas.

Measures to Improve Quality of Raisins.—In order to remove the old prejudices against Turkish raisins in export markets, the government has been conducting a vigorous campaign in recent years to improve raisin-processing methods. Drying raisins on surfaces coated with manure, formerly a general practice, is forbidden, and growers are being encouraged to dry on paper. However, because of the expense involved very few have adopted this practice. Nougaret⁴⁶ states that most of the raisins are still dried on the ground on a hard smooth surface prepared from a mixture of gray clay, mud, and straw. A few of the most progressive growers have recently equipped their drying yards with tents, so constructed as to be rapidly drawn over the drying beds when necessary as a protection against rains, which unfortunately normally occur before drying is completed. These tents are too expensive for most growers. The government, however, in an effort to encourage more growers to improve the quality of their raisins by using them, has extended special credit to growers for this purpose through the Agricultural Bank of Manisa, a government institution. A commission of government officials, with the aid of a physician, enforces sanitary regulations in all packing houses, and refuses export permits unless all sanitary requirements are complied with.

The government alcohol monopoly, established in June, 1925, has

⁴⁵ Nougaret, R. L. The Smyrna raisin industry. California Grower 5(3):12-13. 1933.

⁴⁶ Nougaret, R. L. The Smyrna raisin industry. California Grower 5(3):12-13. 1933.

helped the Turkish raisin industry by purchasing all damaged and otherwise unexportable fruit; this step has tended to improve and stabilize prices.

The Smyrna Raisin Exchange, a semiofficial institution, has been operating since 1924, with its major purpose the improving of marketing conditions. Growers no longer haul their raisins from one exporter's warehouse to another in order to complete a sale. All sales must now be made on the Exchange through the sellers' brokers by means of samples stored in central warehouses. Control is exercised by registering each sale and publishing the price and other essentials of the transaction, so that growers as well as the trade may be kept well informed.

A very limited amount of advertising of Turkish raisins in European markets has been done by exporters and Turkish delegations abroad. Partially as a means of advertising, it has been necessary since 1925 to mark all containers with the name of the product, the trade-mark, the name of the exporter, and place of origin. As yet, compulsory government grades and standards have not been adopted but such action is to be expected as a means of strengthening the reputation of Smyrna raisins in foreign markets.

In general it may be said that the new republican government of Turkey has displayed much more interest in the welfare of farmers than did the old Ottoman government. While there have been no legislative measures directly concerned with the regulation of raisin production or the control of raisin prices and exports, the several general agricultural measures enacted have been instrumental in stimulating and encouraging greater interest in the industry. Undoubtedly the Smyrna raisin industry possesses great potentialities for future development. This is particularly significant in view of the fact that most of the other raisin-producing areas of the world have already adopted the latest scientific methods for both production and distribution and therefore cannot hope to make much further progress. With the general adoption of scientific methods of production, processing, and marketing, the Smyrna raisin industry might well become a much more important competitor in the world's raisin markets than it is at present.

THE CYPRUS RAISIN INDUSTRY⁴⁷

The island of Cyprus, situated in the east corner of the Mediterranean basin, produces mainly dark, seeded raisins, but in recent years a few sultana raisins have also been produced. Since production figures are not available, the volume of the industry must be determined largely

TABLE 22

VINE ACREAGE AND RAISIN EXPORTS OF CYPRUS,
AVERAGE 1909-1913, ANNUAL 1920-1932

Calendar year	Area under vines*	Raisin exports	Calendar year	Area under vines*	Raisin exports
	<i>acres</i>	<i>1,000 pounds</i>		<i>acres</i>	<i>1,000 pounds</i>
Average:			Annual (<i>continued</i>)		
1911-1913.....	45,718	6,833†	1925.....	86,979	7,606
Annual:			1926.....	87,597	7,400
1920.....	50,752	4,067	1927.....	86,873	9,850
1921.....	46,702	3,966	1928.....	92,559	10,906
1922.....	54,406	4,040	1929.....	91,733	10,874
1923.....	79,759	4,226	1930.....	111,852	11,553
1924.....	88,210	10,274	1931.....	—‡	5,978
			1932.....	—	6,984

* Grapes of all kinds.

† 1909-1913.

‡ Dash indicates data not available.

Sources of data:

Compiled from Internatl. Yearbook of Agr. Statis.; from Cyprus Blue Book; and from the Cyprus Agr. Jour.

from the exports of raisins which averaged 9,327,000 pounds annually during the period 1925-1929. The total area under vines in that period averaged 89,148 acres a year but a large majority of this is devoted to the production of fresh grapes utilized for wine, the output of which has averaged about 4,000,000 gallons in recent years.⁴⁸

PRODUCTION TREND

Table 22 gives the total area under vines in Cyprus and the exports of raisins from the island for a number of years. In general the raisin-growing potentialities of the island are not very great. Approximately one-half of the total area of Cyprus is under cultivation and only one-

⁴⁷ General sources used for this section in addition to those given in specific footnotes:

Cyprus Blue Book. Nicosia.

Cyprus Agricultural Journal, published quarterly.

Great Britain, Colonial Office. Colonial reports. Cyprus, published annually. London.

⁴⁸ Dawe, M. T. The grape and wine industry of Cyprus. Cyprus Dept. Agr. Industrial Series. Bul. 1:4. October, 1928.

fourth of the remainder is adaptable to agricultural pursuits. The ideal soils for successful cultivation of Sultanina vines are rather limited. This difficulty, however, may be partially overcome by grafting onto the local white grape "Xynisteri," which grows well on poor, dry lands, being deep-rooted and drought resistant.⁴⁹ Agriculture generally is

TABLE 23
CYPRUS RAISIN EXPORTS TO CHIEF MARKETS,
1913, 1920-1931

Calendar year	Total	Italy*	France	Ru- mania	Great Britain	Egypt	United States	Other countries†
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1913.....	‡	§	§	6,684	11	635	797	‡
1920.....	4,067	125	470	§	711	915	1,074	772
1921.....	3,966	11	460	156	230	807	1,072	1,230
1922.....	4,040	168	976	243	208	287	1,564	594
1923.....	4,226	1,246	696	406	55	879	755	189
1924.....	10,274	5,568	1,334	1,023	94	672	1,245	338
1925.....	7,606	3,518	1,252	818	29	589	1,183	217
1926.....	7,400	4,226	1,268	965	241	284	377	39
1927.....	9,850	4,643	2,411	1,167	1,084	234	48	263
1928.....	10,906	5,205	3,772	1,092	340	269	§	228
1929.....	10,874	5,125	3,214	1,070	481	360	§	624
1930.....	11,553	6,764	2,281	807	257	299	§	1,145
1931.....	5,978	2,586	1,109	1,074	243	235	§	731

* Much of the increased shipments to Italy in recent years are believed to represent transit to Germany and other European markets.

† Direct exports of Cyprus raisins to Germany are given in official statistics for the following years only: 1924, 247,000 pounds; 1925, 11,000 pounds; 1928 35,000 pounds; 1929, 337,000 pounds; 1930, 945,000 pounds; 1931, 490,000 pounds.

‡ Total exports for the year 1913 are not available but total exports averaged 6,833,000 pounds for the five years 1909-1913. (See: Internatl. Yearbook of Agr. Statis., Rome.)

§ If any, included with "other countries."

Source of data: Compiled from Cyprus Blue Books.

undertaken by the peasant proprietors on small holdings. Since they are dependent upon yearly crops for their livelihood, they can hardly tie up land and capital in the production of a crop which will not bring returns until two or more years later. Even if prices are favorable, it is believed that expansion in the raisin acreage would take place very slowly. Much can be done to increase production, however, by improvement in methods of cultivation.

EXPORT OUTLETS

The ordinary Cyprus raisin has a tough skin and large pips and lacks flavor to some extent. For that reason it does not compete much with the bulk of eating raisins from other countries. At the present

⁴⁹ Agricultural Supplement No. 52 to The Cyprus Gazette. No. 2248, p. 1. October 28, 1932.

time, Cyprus raisins are used mainly for industrial purposes. Selected and well-prepared raisins are mostly consumed by the villagers themselves, while the export raisin is not given the same careful attention. Exports, however, have been increasing.

Table 23 shows that France, Italy, and Rumania take the bulk of the raisins exported from that island. Much of the increase in shipments to Italy in recent years is believed to represent transit trade for which Germany and other European markets are the ultimate destination. The German market probably receives its quota of Cyprus fruit through this transit trade.

Cyprus has been under British administration since 1878 and was declared a British Colony in 1925. For that reason it now enjoys preferential treatment in the British market. Exports to the United Kingdom, however, are relatively small because the Cyprus exportable product is not an edible raisin. There is a movement now among Cyprus exporters to develop the British market and make it an important outlet. With this end in view, the Cyprus Department of Agriculture for many years has been encouraging peasants to replace seeded raisin-grape vines with Sultanina vines. However, the area of this variety in 1932 did not exceed 28 acres and it is estimated that an increase of only about 7 or 8 acres of Sultanina vines is taking place annually.⁵⁰ At such a slow rate of growth it is evident that many years would be required to replace the present acreage of undesirable seed-raisin grapes with Sultanina vines. Hence, it would appear that there is little danger of sultana raisin exports from Cyprus becoming of any real importance in international trade for many years. Even if all of the present raisin-grape acreage of the island were ultimately replaced with Sultanina vines, raisin production would probably not exceed 10,000 tons. The Cyprus Department of Agriculture reports that yields per acre of sultana raisins in Cyprus are only from 2,000 to 3,000 pounds per acre as compared with 3,000 to 4,000 pounds in Greece and Smyrna. The Department, however, believes that good quality sultana raisins can be produced with proper cultural and processing methods.

⁵⁰ Agricultural Supplement No. 52 to The Cyprus Gazette. No. 2248. p. 1. October 28, 1932.

GOVERNMENT ASSISTANCE

Considerable legislation has been enacted in Cyprus dealing with plant protection, irrigation, coöperation, and credit.⁵¹ The government also controls the sale of fertilizers in order to prevent misrepresentation and sells agricultural implements and selected seeds and plants at low prices. Progress in the cultivation of the Sultanina raisin grape is reported to have been accelerated by the establishment of a government nursery at the Saitta Experimental Vineyard from which growers can secure rooted cuttings at low prices.⁵² Experiments are being made in numerous plots throughout the island to demonstrate proper methods of planting, fertilization, cultivation, pruning, irrigation, and drying. The Cyprus Department of Agriculture has from time to time carried out demonstrations in all the raisin-growing regions on the use of carbonate of potash solution as a dipping liquid with a view to improving the quality of raisins. This chemical hastens drying and gives the fruit a better appearance. It will be many years, however, before sufficient change in the ancient Cyprus raisin industry to be noticeable in international trade may be expected.

A number of their people have been trained abroad on government fellowships as experts for various branches of agriculture. Recently the government has sent Trade Development Missions to Syria, Palestine, Egypt, and Greece. The government has indicated that it does not favor the principle of subsidizing raisin growers by premiums or bounties which causes a rapid and perhaps unjustified expansion.

There is no legislation in force in Cyprus regulating the grading and packing of raisins. Such legislation may be enacted in the near future since the Empire Marketing Board in London reported unfavorably on several trial shipments of Cyprus raisins to that port and pointed out that expert grading and packing is the first requirement for successful marketing in the United Kingdom. It also recommended the production of sultana raisins in Cyprus rather than other kinds. It will be many years, however, before the results of this shift from the ancient Cyprus raisin to the more appreciated varieties become evident on the market.

⁵¹ It is a remarkable fact that on this relatively small island with approximately 350,000 inhabitants mostly engaged in agriculture, there were on December 31, 1929, 320 coöperative societies, 223 being credit societies. The number of credit societies has increased until at present there are about 270. Fruit-preserving societies and tree (stock) planting societies are projected. Yearbook of Agr. Coöp. 1931:231. 1931. The Agricultural Bank, established in 1925 under the joint auspices of the government and the Ottoman Bank works in close connection with the coöperatives.

⁵² Agricultural Supplement No. 52 to The Cyprus Gazette. No. 2248. p. 1. October 28, 1932.

THE RAISIN INDUSTRY OF PALESTINE, TRANSJORDANIA,
AND SYRIA⁵³

Most of the raisins produced in Palestine, Transjordan, and Syria are seeded varieties, largely from old vineyards in Syria and Transjordan and exported principally to Egypt. Palestine is said to ship the bulk of its grape crop fresh to Egypt. In addition to raisin grapes, Syria produces more wine grapes than table grapes. The district around the city of Es Salt is the chief raisin-producing section in Transjordan, and is estimated to produce about 1,984,000 pounds annually. The Palestine raisin industry is concentrated mainly in the Hebron district which is said to produce from 220,000 to 265,000 pounds of raisins annually. Viteles,⁵⁴ however, states that Palestine as a whole produces about 1,000,000 pounds a year. In the Hebron district most of the few sultana raisins produced are from young Thompson Seedless vines of California stock.

Syria, according to Shallah,⁵⁵ exports from 1,000,000 to 2,000,000 pounds of raisins annually, whereas table 24 shows that Palestine and Transjordan together have seldom exported more than 1,000,000 pounds through Palestine in any recent years. Shallah also states that Syrian raisins are mostly produced in the district around Damascus where the raisin-grape acreage has varied but little for many years because there is very little, if any, additional good raisin-grape land available for planting. The other grape-producing districts of Syria specialize in wine-grape growing. Shallah states that two chief kinds of raisin grapes are produced in Syria. Somewhat over half of the raisins produced are made from a long, finger-shaped, yellowish-white, seeded grape. Raisins from this grape are known as *Durbuly* in Syria. They are largely exported to Egypt where they are mistakenly spoken of as sultanas by the trade. Most of the balance of Syrian raisins are

⁵³ General sources used for this section in addition to those given in specific footnotes:

Palestine. Department of Customs, Excise and Trade. The Commercial Bulletin, published monthly. Jerusalem.

Palestine Economic Corporation, Inc. Annual reports. New York.

Palestine. Laws, Statutes, etc. Ordinances. Jerusalem.

[Palestine] Official Gazette, published fortnightly. Jerusalem.

The Palestine and Near East Economic Magazine, published fortnightly. Tel-Aviv.

⁵⁴ Viteles, H. B. Cultivation of grapes in Palestine. Palestine Econ. Soc. Bul. 3(3):1-87. 1928.

⁵⁵ The limited information on the Syrian raisin industry given in this section was secured from Mr. Anwar Shallah, a Syrian graduate student in the School of Commerce in the University of California in the 1932-33 school year, whose father is a prominent dried-fruit packer and exporter in Syria.

made from a small, red, seeded grape. These raisins are sometimes exported for wine-making.

Syria is a French protectorate and has its own Mediterranean ports, the chief one being Beirut. Transjordan is also an autonomous state not under the authority of the Palestine government, but it has no direct outlet to the sea and for that reason ships through Palestine. Most of the raisins reported in Palestine trade statistics as exported from Palestine are in reality shipments of the Transjordan product. Palestine

TABLE 24
EXPORTS OF PALESTINE AND TRANSJORDANIA RAISINS
FROM PALESTINE, 1922-1932

Calendar years	Exports	Calendar years	Exports
	<i>1,000 pounds</i>		<i>1,000 pounds</i>
1922.....	604	1927.....	1,139
1923.....	467	1928.....	570
1924.....	997	1929.....	1,159
1925.....	403	1930.....	654
1926.....	285	1931.....	813
		1932.....	559

Sources of data:

1922-1924: from Viteles, H. Cultivation of Grapes in Palestine. Palestine Econ. Soc. Bul. 3 (3). 1928.

1925-1932: from The Commercial Bulletin.

contributes very few raisins to the export trade, her raisins being principally absorbed by the home market. In fact, Shallah reports that Palestine imports some Syrian raisins for local consumption. Table 24 gives the exports of Palestine and Transjordan raisins from Palestine from 1922 to 1932.

Approximately 90 per cent of the raisins exported from Palestine are shipped to Egypt, mostly to the port of Alexandria from which they are distributed to other parts of the country. The importance of Palestine's raisin industry in international trade is at present even smaller than that of the Cyprus raisin industry. But the potentiality of Palestine seems to be greater, when the probable acreage suitable and available is considered.

PRODUCTION PROSPECTS

Although there are no estimates of the area devoted to raisin production in Palestine all authorities seem to be of the opinion that it can be materially increased. One group in Palestine advocates concentration on the production of fresh table grapes, because the grapes ripen in July, like those of Imperial and Coachella valleys in California, which is much earlier than in the other grape-growing countries, and hence

they should find ready markets in Great Britain and other European countries. The Palestine Department of Agriculture has shown great interest in this branch of viticulture and has repeatedly arranged trial shipments of fresh grapes to Great Britain. The market advantage that very early, fancy table grapes usually have would lead one to believe that expansion of grape production for this purpose rather than for the production of raisins might be the better course to pursue at a time when world raisin supplies are normally so excessive and prices so low.

Another group, however, advocates an expansion of the raisin industry. Palestine has the advantage of long periods of sunshine with practically no rain during the drying season, which makes it particularly adaptable for raisin-grape growing. Furthermore, many varieties of raisin grapes can be grown on unirrigated land. The Rosakia (Elme) variety is one which thrives in the hills of Palestine, where much land is said to be available and no irrigation is required. Under such conditions, it is claimed that raisins can be more cheaply produced than in almost any other country. It is also claimed that the Muscat produces better yields and quality in Palestine than in Spain, and would take preference over Spanish raisins because of its higher sugar content. Moreover, it can be placed on the market earlier. Varieties other than the Muscat are said to be preferred for raisin wine-making by Jews living in foreign countries. A further argument for the expansion of the raisin industry rather than the fresh-grape industry is that in countries where "Prohibition" is the law, and in those countries having a government monopoly, raisins are used to some extent for making wine at home; the Rosakia variety is used for that purpose.

Trial consignments of Palestine raisins have been made to the Imperial Economic Committee in London. The experts reported favorably on the quality and flavor of the raisins, but found that the fruit was not free from foreign matter and that it was not properly graded and packed.

GOVERNMENT ASSISTANCE

No particular measures for rapid and artificial expansion of the raisin industry have been taken. It will be necessary for Palestine to test carefully the adaptability of certain varieties for cultivation and markets, before raisin growing is promoted. As most of the vineyards in Palestine belong to Arabs, the government will encourage the industry only if there is a prospect of a good market outlet. In any event officials take the attitude that the industry should develop gradually by itself and should not be expanded artificially. It is safe to say that, even if encour-

agement should be decided upon by the government, it would take a long time to make Palestine an important competitor.

The industry has, however, been favored by the formation of a plant-protection service (1924) requiring that all nursery vine stocks be subjected to inspection and fumigation and prohibiting the importation of plants from Egypt (1924) and Syria (1926). On the other hand, vines of American stock can be imported duty free (1924–1927) as well as supplies and equipment for the destruction of plant pests and other agricultural operations (irrigation material, tools, fertilizers, etc.). Since 1926 no export duty has been charged upon any goods exported. Vineyards planted with American stock were freed from the necessity of paying land taxes for a ten-year period, 1920–1929.

As much land is held under tenancy in Palestine, the formation of a board in 1930 for the protection of the tenant in case of dispute with the landowner, is considered a factor of real benefit to the raisin grower. The reason for the establishment of this board was that no tenant showed interest in land improvement or in the planting of new vineyards because there was no provision of law entitling him to compensation in case he had to leave the holding. At the present time a compensation has to be paid. The amount is determined by the board. This regulation will undoubtedly induce tenants to make new plantings and to improve the existing ones.

A committee consisting of government officials and representatives of private organizations was formed in 1927 to act in an advisory capacity on all matters pertaining to the marketing of table grapes. It is believed that such a committee will be set up sooner or later to cover raisins. The Palestine Department of Agriculture since 1927 has been conducting experiments in the drying of grapes from local varieties, while the Department of Agricultural Colonization of the Palestine Executive of the Jewish Agency for Palestine (formerly the Palestine Zionist Executive) is investigating the use of Muscats for cluster raisins. While practically none of the measures above mentioned are of much significance either for the promotion of the Palestine raisin industry or for the international raisin trade, they show a definite improvement in the official attitude towards farmers. The old hindrances to progress are being removed so that the raisin industry now has a chance to grow up by its own effort.

THE ITALIAN RAISIN INDUSTRY⁵⁶

Although natural conditions in Italy would seem to make that country an excellent region for raisin and currant production, the industry has not developed into commercial importance. The Italian raisin and currant output, however, is not without significance as regards the competitive aspects of the world market, because Italy consumes several thousand tons of raisins and currants produced at home, which otherwise might be imported from foreign producing centers.

PRODUCTION TREND

Eisen⁵⁷ stated that in 1890 three sections of the Italian kingdom together produced 15,000 tons of raisins and currants which would be 5,000 tons more than California produced at that time. These sections were Calabria, and the islands Lipari (north of Sicily) and Pantelleria, between Sicily and the northern African coast. Giglioli⁵⁸ reports that in the period 1897 to 1902 average imports of raisins and currants were about six times as large as exports, indicating that home production did not satisfy the demand although a comparatively large amount was produced. Briganti,⁵⁹ in 1919, stated that raisin production assumed the characteristics of a real industry only on the islands of Pantelleria and Lipari, which produced together about 5,500 tons. In a more recent statement,⁶⁰ it was estimated that Italian production of raisins for these two islands was between 6,600 and 7,200 tons, with production in Calabria no longer of any commercial significance. Another estimate⁶¹ in 1927

⁵⁶ General sources used for this section in addition to those given in specific footnotes:

American Chamber of Commerce for Italy. Year Book. Milan. 1930.

Confederazione Nazionale Fascista Agricoltori, Commissione Tecnica per le Uve da Tavola. *Le Uve da Tavola*. [The table grape.] 50 p. Società Anonima Stabilimento Arti Grafiche, Milan. 1930.

[Italy] *Gazzetta Ufficiale*, published daily. Rome.

Istituto Nazionale per l'Esportazione. [The Italian Exporter.] Published monthly. Rome.

L'Italia Agricola, published monthly. Piacenza.

L'Italia Vinicola ed Agraria, published weekly.

⁵⁷ Eisen, Gustav. The raisin industry. p. 177. H. S. Crocker and Company, San Francisco. 1890.

⁵⁸ Giglioli, Italo. Di alcune vere questioni meridionali. (Extract from: *Revista d'Italia*.) p. 17. July, 1903.

⁵⁹ Briganti, Gaetano. I Problemi dell'orticoltura Italiana. *L'Italia Nuova*. Series No. 3:40. 1919.

⁶⁰ *Giornale di Agricoltura*. p. 489. (Piacenza) 1927.

⁶¹ Casella Domenico, in: *Relazioni del II Congresso Nazionale di Frutticoltura*, 1927:304. (Ravenna) 1928.

places the raisin and currant production of Italy at from 5,500 to 6,600 tons.

The islands of Pantelleria and Lipari are both under the administration of Sicily, Lipari belonging to the province of Messina and Pantelleria to Trapani. Most of the raisins listed in the production statistics as being produced in Sicily actually come from the island of Pantelleria.

TABLE 25
ITALIAN RAISIN PRODUCTION BY DISTRICTS, 1929-1932

Administrative districts and regions	1929		1930		1931		1932*	
	Fresh grapes destined to raisin production	Raisins produced	Fresh grapes destined to raisin production	Raisins produced	Fresh grapes destined to raisin production	Raisins produced	Fresh grapes destined to raisin production	Raisins produced
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Central Italy:.....	3,021	1,057	5,425	1,900	4,046	1,349	3,212	1,122
Marche.....	7	3	4	2	62	22	57	20
Latium.....	3,014	1,054	5,421	1,898	3,984	1,327	3,155	1,102
Southern Italy:.....	438	147	322	105	1,221	402	1,040	343
Abruzzi and Molise.....	317	101	201	64	335	107	337	108
Apulia.....	99	33	101	34	112	38	141	48
Calabria.....	22	13	20	7	774	257	562	187
Islands:.....	30,593	10,476	22,681	7,610	20,242	6,624	18,775	5,922
Sicily.....	29,217	10,004	20,750	6,960	18,534	6,042	17,002	5,322
Sardinia.....	1,376	472	1,931	650	1,708	582	1,773	600
Total Italy.....	34,052	11,680	28,428	9,615	25,509	8,375	23,027	7,387

* Preliminary data subject to revision.

Source of data:

Istituto Centrale di Statistica, Bolletino Mensile di Statistica Agraria e Forestale, January, 1931, and December, 1932.

Raisin and currant production on the island of Sicily itself has not been developed on a commercial scale. Table 25 gives the official production statistics for Italian raisins for the years 1929-1932. The bulk of the commercial production, amounting to from 10 to 12 million pounds, is marketed mainly in the industrial centers of northern Italy, especially in Milan, a growing outlet.

The raisin grapes, Zibibbo, grown in the main producing region, Pantelleria, are the Muscat of Alexandria and are marketed mainly as cluster raisins. In quality they are inferior to the Spanish product. The island of Lipari produces a type of seedless currant (Passolina di Lipari), which is larger in size than the Greek currant and has a tough

skin. The production in other regions consists exclusively of seeded raisins.

The practice of processing raisins and currants varies considerably in the different producing regions.⁶² It is generally recognized in the Italian literature on the subject, that processing is executed very primitively and that the product would be much better if it were processed scientifically and better graded and packed.

MARKET OUTLETS AND DOMESTIC CONSUMPTION

Italy exports only small quantities of raisins (see table 26). These exports are fairly well distributed to all European countries, but the

TABLE 26
RAISIN AND CURRANT EXPORTS FROM ITALY,
AVERAGE 1909-1913, ANNUAL 1920-1932

Calendar year	Exports	Calendar year	Exports
	<i>1,000 pounds</i>		<i>1,000 pounds</i>
Average:		Annual (<i>continued</i>)	
1909-1913	369	1925.....	82
		1926.....	95
Annual:		1927.....	30
1920.....	210	1928.....	13
1921.....	423	1929.....	114
1922.....	98	1930.....	106
1923.....	113	1931.....	156
1924.....	485	1932.....	130

Sources of data:

Internatl. Yearbook Agr. Statist., Rome: Statistica del Commercio Speciale; Movimento Commerciale del Regno d'Italia.

bulk goes to the United States. It seems that the Italian people living in certain large centers of population in the United States do not like to miss the genuine *Pantelleria* in Christmas dried-fruit baskets.

Imports of raisins and currants into Italy are shown by the data in table 27 to have been increasing steadily since the War. In 1930 they amounted to 5,951,000 pounds as compared with an average of 2,795,000 pounds for the years 1909-1913. Comparison of imports with production indicates that Italy produces, on the average, considerably more raisins than she imports. The question, therefore, arises why could not Italy herself satisfy the increasing demand at home that is indicated by imports? The increase in imports is due to the inferior quality of the Italian raisins and to the fact that during the last four years a superior product from abroad has been offered at favorable prices.

⁶² A comprehensive statement to this effect is given by: Casella Domenico in: Relazioni del II Congresso Nazionale di Frutticoltura 1927:304. (Ravenna) 1928.

PROSPECTS FOR THE INDUSTRY

An expansion in production would seem to depend largely upon an improvement in the quality of the product. If the Italian producers could improve the quality of their raisins and currants without raising prices to more than slightly under the level of those of foreign origin there is no question but that, under present consumption conditions, an additional 3 to 5 million pounds of home-grown produce could be marketed, largely in the cities, as a substitute for imports from abroad. This would necessitate, however, more of an increase in the production of currants and other seedless raisins than of Zibibbo (Muscat) raisins.

TABLE 27
ITALIAN IMPORTS OF RAISINS AND CURRANTS,
AVERAGE 1909-1913, ANNUAL 1920-1932

Calendar year	Imports	Calendar year	Imports
	<i>1,000 pounds</i>		<i>1,000 pounds</i>
Average:		Annual (<i>continued</i>):	
1909-1913	2,795	1925	2,780
		1926	1,557
Annual:		1927	6,372
1920	351	1928	7,821
1921	1,083	1929	4,657
1922	1,137	1930	5,951
1923	2,950	1931	5,538
1924	3,341	1932	5,976

Sources of data:

Internatl. Yearbook Agr. Statis., Rome: Statistica del Commercio Speciale; Movimento Commerciale del Regno d'Italia.

A considerable, but unknown, quantity of home-dried raisins is consumed in Italy, largely by farmers. Therefore, total consumption of raisins in Italy is not known. Consumption of commercial raisins (other than home-dried), however, averages about $\frac{1}{2}$ pound per capita. It would probably be very difficult to double the per-capita consumption of commercial raisins produced in Italy since the bulk of the demand is for holiday trade. Other fruits are abundant and cheap, and but few of the rural population could be induced to substitute commercially dried raisins for home-dried. The demand for raisins in Italy is highly seasonal since they are used mainly as an ingredient of holiday cake (*panettone*) or in cluster form at Christmas. During the rest of the year the raisin is not a daily foodstuff and is not likely to become one. There is an abundance of fresh, as well as of dried fruit, especially figs, which, so far as the daily diet is concerned, strongly competes with raisins in Italy.

Most of the peasants who grow grapes dry some at home for consumption at Christmas time. Even some city dwellers purchase fresh grapes for the same purpose. Such home-dried raisins have a peculiar tart flavor seemingly well liked by the consumers, and in addition are cheaper than commercial raisins. Undoubtedly the general use of home-dried raisins by farmers plays an important part in checking the commercial expansion of the commercial raisin industry. Nevertheless, it does not seem unreasonable to assume that the Italian raisin industry could expand to a production level of about 25 million pounds for home consumption, provided it shifts to growing seedless varieties. Considerable land is available for raisin production on the sea-coast mountain slopes and foothills of Sicily and southern and central Italy, and a considerable area of land in wine grapes now unprofitable as a result of overproduction of wine might be used for raisin production.

GOVERNMENT ASSISTANCE

In view of the well-known endeavors of the Fascist régime to develop and to encourage agriculture in general, it is surprising that the raisin industry has received no specific official encouragement—not even a protective tariff.⁶³ One measure, however, which might contribute to an increase in the production of seedless varieties is the decree of December 31, 1923. This decree exempted new plantations of “high-growing vines” (espaliers, tree-trained, or stake-supported, trellised, branched and the like) from payment of taxes.

THE SPANISH RAISIN INDUSTRY⁶⁴

The Spanish raisin industry centers in two districts bordering on the Mediterranean Coast. The southern district is in Málaga, of which Málaga is the chief port; the northern district is in the provinces of Valencia and Alicante, of which Denia is the chief port. Sporadic attempts have been made to produce raisins in Almería, Tarragona,

⁶³ For a discussion of the governmental policy of Italy toward agriculture in general see: Hazan, N. W. The agricultural program of the Fascist Italy. *Jour. Farm Econ.* 15:489-502. 1933.

⁶⁴ General sources used for this section in addition to those given in specific footnotes:

Agricultura; *Rivista Agropecuaria*, published monthly. Madrid.

American Chamber of Commerce in Spain. *Bulletin*, published monthly. Barcelona. La Pasa de Málaga. Málaga.

Livengood, C. A., Julian Greenup, and Philip M. Copp. Spain: resources, industries, trade, and public finance. U. S. Dept. Com. Bur. of Foreign and Dom. Com. Trade Inform. Bul. 739:1-47. 1930.

[Spain] Dirección general de agricultura. *Boletín de agricultura técnica y economica*, published monthly. Madrid.

Granada, Córdoba, and on the Canary Islands. With the exception of negligible quantities produced in the provinces of Granada and Córdoba, however, no raisins are grown in other parts of Spain. The raisin

TABLE 28

SPANISH EXPORTS* OF RAISINS, TOTAL, AND FROM THE VALENCIA-ALICANTE
AND MÁLAGA DISTRICTS, 1905-1912, 1921-1932

Year†	Valencia- Alicante‡ (unofficial)	Málaga (unofficial)	Total, Valencia- Alicante and Málaga (unofficial)	Total Spain (official)
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
1905.....	52,317	15,293	67,610	66,678
1906.....	32,804	11,266	44,070	44,359
1907.....	49,846	14,976	64,822	60,315
1908.....	44,233	12,555	56,788	58,149
1909.....	48,719	12,815	61,534	64,758
1910.....	38,197	12,718	50,915	56,514
1911.....	41,574	18,256	59,830	62,347
1912.....	25,027	12,053	37,080	38,090
1921.....	13,684	21,996	35,680	38,734
1922.....	18,456	19,626	38,082	34,289
1923.....	16,358	16,571	32,929	27,313
1924.....	22,730	19,270	42,000	37,822
1925.....	26,814	19,905	46,719	37,922
1926.....	22,512	13,503	36,015	39,676
1927.....	23,556	16,186	39,742	39,277
1928.....	19,498	14,182	33,680	30,504
1929.....	19,046	12,784	31,830	30,870
1930.....	18,822	12,640	31,462	32,800
1931.....	16,700	12,548	29,248	30,684
1932§.....	17,226	14,100	31,326	31,063

* Data for the Valencia-Alicante and Málaga districts, 1921-1931, and presumably all data for total Spain exclude shipments by sea to Spanish markets. It is not known whether or not such shipments are included in the data for the Valencia-Alicante and Málaga districts previous to 1921.

† All data 1905-1912 and data for total Spain are for calendar years. Data for the Valencia-Alicante district, 1921-1928, are for years beginning July 1; and 1929-1932, for years beginning August 1. Data for the Málaga district, 1921-1928, are for years beginning September 1; and 1929-1932, for years beginning August 1.

‡ Data for 1905-1912 are on exports from the port of Denia only, which amounted to 42,560,000 pounds in the calendar year 1904 and for crop years 38,173,000 in 1913, 28,467,000 in 1914 and 11,776,000 in 1915. Data on exports from the ports of Valencia and Alicante, the other ports from which raisins of this district are shipped, are not available previous to 1913, but for the three crop years 1913-1915 averaged only 6,660,000 pounds.

§ Preliminary estimates subject to revision.

Sources of data:

Data for the Valencia-Alicante district for 1905-1912: compiled from Great Britain Diplomatic and Consular Reports on the Trade and Commerce of the Consular District of Barcelona, Spain. 1921-1928: compiled from Exportacion de Pasa Valenciana. 1929-1932: from U. S. Agricultural Commissioner, N. I. Nielsen, Marseilles, France. (See: Federal-State Market News Service. Foreign Raisin Reports No. 39: 3, 4; No. 45: 2, March and August, 1933 [Mimeo.] Sacramento, California.)

Data for the Málaga district 1905-1912: compiled from Great Britain Diplomatic and Consular Reports on the Trade and Commerce of the Consular District of Málaga, Spain. 1921-1932: from table 33.

Data for total of Spain from table 32.

industry in Spain is not of the same economic importance to the country as a whole as it is in other countries of the Mediterranean, although it is of vital importance to the population in the main producing districts.

The raisin grapes grown in Spain are almost exclusively the Muscat

(Gordo Blanco) variety.⁶⁵ However, the raisins of the two chief producing regions differ from each other greatly in that the Muscats of Málaga, known as Málaga raisins,⁶⁶ are exported mainly as clusters, while the Valencia and Alicante output is all sold off the stalk. This is due to the fact that simple sun-drying of the bunches can take place in Málaga, while dipping in a soda and lye solution must be practiced in the other districts because the climate makes sun-drying difficult. This procedure makes the raisins from Valencia and Alicante inferior to those from Málaga. Soil conditions in the Valencia-Alicante district are also said to influence the quality of the product grown in that district. The decided difference in the consumptive use to which the cluster Muscats from Málaga and the loose Valencia-Alicante product are put makes two rather distinct raisin industries in Spain, since the product of the two regions is practically noncompetitive.

TREND OF PRODUCTION

According to Eisen,⁶⁷ the Spanish raisin industry originated in ancient times. After a period of apparent deterioration under the Roman rule, raisin growing in Spain is supposed to have been reestablished and improved by the Arabs and Moors. At times the output of the Valencia raisin industry must have been remarkable. Eisen further stated that by 1862 raisin exports from Valencia had dwindled to 14 million pounds.⁶⁸ By 1876 exports had again risen to 38 million pounds and by 1883 to 80 million pounds. In 1888 the output⁶⁹ was about 64¾ million pounds. The crop of 1889 is reported to have reached nearly 78½ million pounds (converted from Eisen's figures of "2,800,000 boxes of 28 pounds each"). Table 28 shows that the Valencia district averaged about 44¾ million pounds in 1905-1908. Since then exports from that district have

⁶⁵ Wheeler says: "A relatively small amount of Lairen and Pedro Ximen raisins are also produced in Málaga." (From: Wheeler, L. A. International trade in dried fruits. U. S. Dept. Com. Bur. Foreign and Dom. Com. Trade Promotion Series No. 44:10. 1927.) According to reports from the United States Consular sources, the last two varieties represent about one-fifth of the total raisin output of Málaga. These raisins do not enter to any important extent into the export trade. They are mostly consumed within the country in the production of wine and alcohol. The small amounts exported go mainly to Mexico and South America.

⁶⁶ This is the Gordo Blanco Muscat of Málaga which is the same as the California Muscat (Muscat of Alexandria). The California Malaga grape is a different variety.

⁶⁷ Eisen says that raisins are known to have been exported from Málaga since 1295 A. D., and that raisins were being produced in Spain many centuries before that date. The raisin-producing areas in Spain were settled by the early Phoenecian traders and it is believed that they introduced the production of raisins in Spain. Records indicate that the Valencia raisin was known to the Romans. (From: Eisen, Gustav. The raisin industry. H. S. Crocker and Company, San Francisco. 1890.)

⁶⁸ Converted from supposedly short tons.

⁶⁹ Probably the combined output of Valencia and Alicante.

dwindled to only about one-half of that quantity, averaging only a little over 20 million pounds in the years 1926–1930. From these data it would appear that the raisin industry in the Valencia district is capable of great expansion.

The output of the raisin industry of Málaga also seems to have decreased greatly. Exports from Málaga declined from an average of

TABLE 29
FRESH GRAPES DESTINED FOR RAISIN PRODUCTION
IN SPAIN, 1907–1927

Year harvested	Quantity		Year harvested	Quantity	
	Fresh weight	Equivalent dry weight		Fresh weight	Equivalent dry weight
	<i>1,000 pounds</i>	<i>1,000 pounds</i>		<i>1,000 pounds</i>	<i>1,000 pounds</i>
1907.....	164,952	41,238	1918.....	98,914	24,728
1908.....	159,490	39,875	1919.....	165,868	41,467
1909.....	188,172	47,043	1920.....	172,188	43,047
1910.....	102,348	25,587	1921.....	142,692	35,673
1911.....	164,946	41,237	1922.....	132,990	33,248
1912.....	114,248	28,562	1923.....	113,324	28,331
1913.....	175,736	43,934	1924.....	180,600	45,150
1914.....	112,310	28,078	1925.....	184,222	46,056
1915.....	87,194	21,798	1926.....	125,012	31,253
1916.....	148,000	37,000	1927.....	205,608	51,402
1917.....	144,012	36,003			

Sources of data:

Fresh weight from Junta Consultiva Agronomica (since 1923, Consejo Agronomico) in *Estadistica Viticola y Olivarrera*, 1907–1915, and *Estadistica de la Produccion Viticola*, 1926–1927. Dry weight computed from fresh weight at a drying ratio of 4 to 1.

about 48 million pounds in the years 1870–1874 to only about 14 million pounds in the years 1926–1930.

Up to the present time there have been no official Spanish statistics on the acreage and production of raisins for a series of years. It is believed, however, that such data will be available in the future in view of the fact that a royal decree of November 14, 1929, provides for the compilation of agricultural statistics. Official statistics covering the quantities of fresh grapes destined to be worked into raisins are available from 1907 to 1927 (see table 29), but they are not given separately for each province until 1921 (table 30). Sporadically the government has also issued official figures on the production of raisins in the principal producing regions. Comparison of these data and those in table 30 on the quantities of fresh grapes destined for raisin production, converted to a dried basis, indicate that the latter probably are a rough approximation of the actual raisin production of Spain. However, in a few years, mostly pre-war years, the dried production shown in table 29 has been

somewhat smaller than the quantity shown in table 32 as actually exported from Spain. In years since the War, the apparent dried production of Málaga shown in table 30 is greater than exports for corresponding years (table 28), but the apparent production of the Valencia-Alicante district shown in table 30 is smaller than exports in

TABLE 30
GRAPES DESTINED FOR RAISIN PRODUCTION IN SPAIN
BY PROVINCES, 1921-1927

Province	1921	1922	1923	1924	1925	1926	1927
1,000 pounds, fresh weight							
Málaga.....	93,682	87,236	63,574	134,210	132,200	95,556	143,334
Valencia and Alicante	48,934	45,690	49,682	46,318	51,942	29,336	62,148
Valencia.....	9,250	9,314	9,998	9,942	12,258	5,966	34,590
Alicante.....	39,684	36,376	39,684	36,376	39,684	23,370	27,558
Grenada.....	66	64	68	72	80	76	84
Córdoba.....	—*	—	—	—	—	44	42
Total.....	142,682	132,990	113,324	180,600	184,222	125,012	205,608
1,000 pounds, equivalent dry weight							
Málaga.....	23,421	21,810	15,894	33,552	33,050	23,888	35,834
Valencia and Alicante	12,234	11,422	12,420	11,580	12,986	7,334	15,538
Valencia.....	2,312	2,328	2,500	2,486	3,064	1,492	8,648
Alicante.....	9,922	9,094	9,920	9,094	9,922	5,842	6,890
Grenada.....	16	16	18	18	20	20	20
Córdoba.....	—	—	—	—	—	10	10
Total.....	35,672	33,248	28,332	45,150	46,056	31,252	51,402

* Dashes indicate data not available.

Sources of data:

Fresh weight from official Spanish sources.

Dry weight calculated from fresh weight at a drying ratio of 4 to 1.

every year from 1921 to 1927 inclusive (table 28). The export data should be more reliable than the data on raisin grapes destined for drying since exports presumably represent rather closely the actual movement out of the country, and in some years, also include the movement by sea to Spanish markets in addition to shipments to foreign countries.

The United States Department of Agriculture now maintains a representative (see footnote 27, page 38), one of whose duties is to gather from personal observation, as well as from contacts with the governments and the trade, the most reliable estimates of the various fruit and nut crops produced in the countries of the Mediterranean basin.

Table 31, which is based on the investigations made by this representative, gives what is believed to be the most accurate information available on the raisin production in the principal growing regions of Spain in recent years.

EXPORT TRADE AND ITS PROSPECTS

The official statistics of Spanish exports of raisins are unsatisfactory. In the first place they do not make a distinction between clusters and loose raisins. In the second place, the official export statistics are frequently lower than those reported by the trade, probably because of the methods

TABLE 31
RAISIN PRODUCTION IN SPAIN, 1929-1933

Crop year harvested	Valencia district	Málaga district	Total
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1929.....	24,712	16,690	41,402
1930.....	19,362	15,786	35,148
1931.....	17,200	15,100	32,300
1932.....	18,700	22,000	40,700
1933*.....	5,800	15,200	21,000

* Preliminary data subject to revision.

Source of data:

U. S. Agricultural Commissioner, N. I. Nielsen, at Marseilles, France. (See: Federal-State Market News Service, Foreign Raisin Reports. [Mimeo.] Sacramento, California.)

employed in exporting during the rush season. Table 28 enables one to compare the official and unofficial figures for most years since 1905. In order to compare changes in raisin exports from the Málaga with those from the Valencia-Alicante district, it has been necessary to depend largely on the unofficial data shown in table 28. Significant differences between the raisin industries of the two districts make such comparison desirable. The Málaga industry faces entirely different competitive conditions from those faced by the Valencia-Alicante industry. Raisins from Málaga are marketed in clusters as far as possible and are considered a specialty product of unique characteristics. They are sought after by the holiday trade. The Valencia-Alicante raisin district, on the other hand, does not produce cluster raisins, and its export trade in loose raisins has had to face the problem of a decreasing export demand.

Declining Exports from Valencia-Alicante.—Tables 33 and 34 indicate that Muscats from Málaga have a much wider distribution than exports from the Valencia-Alicante district, and the principal consuming markets generally seem to take a steady percentage of the total

exports. The Valencia-Alicante raisin is losing more ground on the international raisin market than the Muscat of Málaga although the quantities exported from Valencia-Alicante are larger than those exported from Málaga. The fact that the Valencia-Alicante district is not in a position to produce clusters will, in all probability, prove rather detrimental to its further trade development, especially in view of the preference given by consumers to seedless varieties. Unless the Valencia-

TABLE 32
RAISIN EXPORTS FROM SPAIN, 1891-1932

Calendar year	Exports	Calendar year	Exports	Calendar year	Exports
	<i>1,000 pounds</i>		<i>1,000 pounds</i>		<i>1,000 pounds</i>
1891.....	63,750	1905.....	66,678	1919.....	49,489
1892.....	82,190	1906.....	44,359	1920.....	58,220
1893.....	60,227	1907.....	60,315	1921.....	38,734
1894.....	71,486	1908.....	58,149	1922.....	34,289
1895.....	64,119	1909.....	64,758	1923.....	27,313
1896.....	65,988	1910.....	56,514	1924.....	37,822
1897.....	70,223	1911.....	62,347	1925.....	37,922
1898.....	74,533	1912.....	38,090	1926.....	39,676
1899.....	78,801	1913.....	42,543	1927.....	39,277
1900.....	81,054	1914.....	33,535	1928.....	30,504
1901.....	69,623	1915.....	25,583	1929.....	30,870
1902.....	61,951	1916.....	42,977	1930.....	32,800
1903.....	68,470	1917.....	18,878	1931.....	30,684
1904.....	58,779	1918.....	36,966	1932.....	31,063

Sources of data:

1891-1906: compiled from Great Britain, Statistical Abstract for Foreign Countries.

1907-1932: compiled from Resúmenes Mensuales de la Estadística de Comercio Exterior and Estadística General del Comercio Exterior de España.

Alicante district goes over gradually to the production of sultana raisins a further decline of exports may be expected. However, the decline of the industry in this region has taken place so slowly that growers have had time to shift to other crops, mainly oranges.⁷⁰

Exports from Málaga.—Málaga, on the other hand, has the advantage of being able to produce a specialty product, for which there will probably always be a limited demand. The production of cluster raisins in California is relatively small and exports have been negligible in recent years. Buyers in the United Kingdom and on the Continent depend on Málaga as the main source of supply. Moreover, it would be difficult for other producing countries to overcome Spanish competition, for the preparation of clusters demands much skilled hand labor which is plen-

⁷⁰ Nielsen, N. I. U. S. Agricultural Commissioner, Marseilles, France, stated in reply to a questionnaire of January 24, 1931 "... in (the district around) Denia and Alicante it is believed that the industry is decreasing because it seems impossible to produce at a price to be able to compete with other producing countries. Furthermore, it has been found more profitable to produce other crops such as oranges, the acreage of which is on the increase."

TABLE 33

RAISIN EXPORTS FROM MÁLAGA, SPAIN, BY COUNTRIES OF DESTINATION, 1921-1931
(Years beginning September 1)

Country of destination	1921	1922	1923	1924	1925	1926	1927	1928	1929*	1930*	1931*
United Kingdom.....	1,000 pounds 5,144	1,000 pounds 5,631	1,000 pounds 5,193	1,000 pounds 5,051	1,000 pounds 4,873	1,000 pounds 3,681	1,000 pounds 4,986	1,000 pounds 3,434	1,000 pounds 3,284	1,000 pounds 3,516	1,000 pounds 3,618
France.....	2,635	3,203	2,153	3,723	3,831	1,985	2,703	3,151	2,696	3,428	3,480
United States.....	4,743	2,325	1,278	1,819	2,088	920	868	914	452	654	618
Sweden.....	1,960	1,819	1,637	1,531	1,771	1,079	1,117	743	712	634	822
Denmark.....	2,416	1,404	951	888	850	571	591	400	278	316	374
Germany.....	1,314	246	428	1,175	801	676	782	659	788	806	556
Netherlands.....	677	890	764	782	683	387	443	532	504	618	582
Belgium.....	838	579	681	438	836	614	1,023	1,018	730	534	658
Mexico.....	680	537	509	322	423	348	276	106	—†	—	—
Uruguay.....	479	405	276	509	467	384	646	384	558	294	308
Cuba.....	389	953	955	885	1,140	695	540	382	378	230	140
Brazil.....	164	219	329	516	632	877	782	944	900	466	438
Canada.....	91	452	355	399	565	318	329	390	250	218	248
Argentina.....	153	333	364	253	245	154	100	130	—	—	—
Portugal.....	128	35	158	83	143	185	135	205	172	150	110
Italy.....	108	84	239	413	266	167	427	435	336	188	122
Norway.....	60	365	196	334	196	169	237	96	—	—	—
Other countries.....	12	146	105	149	95	293	201	259	746	538	474
Total to foreign markets.....	21,996	19,626	16,571	19,270	19,905	13,503	16,186	14,182	12,784	12,640	12,548
To Spanish markets by sea.....	—	1,174‡	1,384‡	2,019	2,363	3,589	4,336	4,749	3,906	3,146	2,226
Grand total.....	—	20,800†	17,955†	21,289	22,268	17,092	20,522	18,931	16,690	15,786	14,774

* Data for 1929-1931 are for years beginning August 1.

† Dashes indicate data not available.

‡ Data on shipments to Spanish markets by sea, 1922 and 1923, are for calendar years.

Sources of data:

Data 1921-1928 on exports to foreign markets from United States Consul at Málaga who secured data for all countries but United States from the

Muscatel Raisin Defense Council of Málaga. Data on exports to the United States taken from the United States Consul's own records. Shipments by sea to Spanish markets compiled from United States consular reports. Data not available for 1921. All data for 1929-1931 compiled by United States Agricultural Commissioner's office at Marseilles, France. (See: Federal-State Market News Service, Foreign Raisin Report No. 39: 14. March, 1933. [Mimeo.] Sacramento, California.)

TABLE 34
RAISIN EXPORTS FROM THE VALENCIA-ALICANTE DISTRICT* OF SPAIN BY COUNTRIES OF DESTINATION, 1921-1931
(Years beginning July 1)

Country of destination	1921	1922	1923	1924	1925	1926	1927	1928	1929†	1930†	1931†
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
United Kingdom.....	12,351	15,929	10,834	14,305	16,098	14,384	14,836	9,941	11,342	11,928	10,188
Irish Free State.....	29‡	14‡	123‡	382	105	305	769	580	1,146	1,030	1,030
Finland.....	—	898	1,588	2,000	3,992	2,431	2,992	2,098	1,808	1,400	1,604
Italy.....	—	—	—	—	—	—	697	2,315	804	1,554	1,754
France.....	450	169	402	1,398	1,959	1,844	1,695	1,697	1,448	1,328	848
Algeria.....	36	224	475	806	853	437	706	437	328	308	190
United States.....	180	429	426	339	327	188	498	1,305	1,328	848	544
Sweden.....	27	39	115	102	102	404	72	32	124	52	52
Norway.....	74	127	476	1,046	1,176	1,265	544	323	556	500	748
Canada.....	326	515	659	1,285	1,169	540	215	268	276	278	106
Denmark.....	15	30	412	136	201	126	65	19	14	30	—
Germany.....	—	—	410	211	253	176	186	34	100	66	34
Belgium.....	—	—	73	3	32	59	184	103	318	306	286
Switzerland.....	192	133	74	701	349	244	53	52	16	2	22
Other countries.....	4	9	9	3	198	109	44	294	584	404	142
Total to foreign markets.....	13,684	18,456	16,358	22,730	26,814	22,512	23,556	19,498	19,046	18,822	16,700
To Spanish markets by sea.....	1,942	1,764	1,587	3,207	3,376	1,696	6,376	6,917	5,666	540	416
Grand total.....	15,626	20,220	17,945	25,937	30,190	24,208	29,932	26,415	24,712	19,362	17,116

Sources of data:

1921-1928; from "Exportacion de Pasa Valenciana" except for exports to Spanish markets, 1926-1928, which are from United States Consular reports. Data in quintals converted to pounds at 112 pounds per quintal, the factor indicated in "Exportacion de Pasa Valenciana."

1929-1931: from reports of United States Agricultural Commissioner N. I. Nielsen, Marseilles, France. (See: Federal-State Market News Service, Foreign Raisin Report No. 39-13, March, 1933. [Mimeo.] Sacramento, California.)

* Includes exports from Valencia, Alicante, Castellon de la Plana, and Murcia.

† Data for 1929-1931 are for years beginning August 1.

‡ Ireland.

§ Included in "other countries."

tiful and cheap in Spain. Other countries with abundant cheap labor (Palestine, Cyprus, Union of South Africa) can hardly be expected to produce clusters of a quality equal to that of the Spanish. The long-time outlook for the cluster Muscat of Málaga, therefore, appears favorable for a limited tonnage for export.

The entire Spanish raisin industry has been in a rather satisfactory position when compared with that of Greece and Turkey, because there has practically never been a great discrepancy between production and exports. The carryovers from old crops have always been negligible, if not exhausted at the time the new crop comes on the market. This is partly due to a considerable increase in home consumption in Spain since 1924.

Domestic Raisin Consumption.—Domestic consumption of raisins in Spain in the years 1928–1930 was several times greater than five or six years previous, the Valencia-Alicante region taking a greater share in this increase. In 1930 about 10,000,000 pounds of raisins from both of the Spanish producing areas were consumed in Spanish markets. This would correspond to a per-capita consumption of about 0.45 pound. It is reported⁷¹ that in 1929, 10,572,000 pounds of raisins were used locally for industrial purposes; in 1930, however, only about 5,000,000 pounds. In other words, the per-capita consumption of raisins used as a foodstuff in 1930 would be only about half of the figure stated above. But this is a point in favor of the Spanish raisin industry, since it indicates that the population of Spain could absorb more for eating purposes than it does at present.

Fresh-Grape Outlets.—At times in recent years there has been an increased demand in Spain for fresh grapes, which have been shipped from Málaga into the interior of Spain on trucks. Moreover, foreign countries have also shown a demand for fresh grapes, according to the varying outcome of their own and other fresh-fruit crops. The Muscat, having large berries, is adapted to consumption in the fresh state and the industry can depend fairly well on this outlet in times of threatening raisin overproduction. In fact the demand for fresh grapes has at times reduced the raisin output, although no disastrous overproduction of raisins was in view.

PROMOTION OF RAISIN GROWING

Although one of the features of the post-war economic policy in Spain has been the increasing government intervention in, and reorganization of, agriculture, the raisin industry has been the recipient of little direct

⁷¹ Nielsen, N. I. U. S. Agricultural Commissioner, Marseilles, France. January 13, 1931.

government aid. There is, of course, the usual amount of plant protection, agricultural extension, credit, coöperative and other legislation affecting agriculture in general, but these legislative measures have not promoted raisin growing any more than they have other branches of agriculture. At any rate, it has not been the tendency of the government to pay premiums on exports or new plantings. On the contrary, a decree of April, 1926, granted exemption from all production taxes to owners of land who would use the land then under vines for the cultivation of cotton. This measure, however, had practically no effect on raisin growing. It was primarily intended to check expansion of wine production, but it is mentioned here as one indication of the attitude of the government toward vine culture in general.

The Spanish government, however, has given special attention to the promotion of agricultural exports in general which has been of help to the raisin industry. An export credit bank, for example, was formed in the fall of 1928 for the purpose of facilitating the financing of exports, the government advancing the funds and exercising its influence over the bank by the appointment of directors. An export credit insurance fund was also created from which the government received half of the premiums, but in turn bore half of the ordinary and all of the extraordinary claims for damages.

Permanent Export Vigilance Committee.—By royal decree of August 25, 1928, the so-called "Permanent Export Vigilance Committee" was established in Spain. The committee carries on the marketing investigations, supervises grading and classification, and creates national trade-marks. It is entitled to impose fines for low quality and unauthorized use of the trade-mark. The use of trade-marks is not compulsory, but they cannot be used if the product does not correspond to certain standards. A special fruit-export investigation committee was formed by royal order of June 18, 1930. This committee deals mainly with aspects of fruit marketing abroad. Neither of these two committees, however, is expected to accomplish anything of outstanding economic importance for the Spanish raisin industry.

RELATION OF THE GOVERNMENT TO THE JUNTA AND THE CAMARA

On the whole, there seems to be a lack of national policy in Spain as far as the raisin industry is concerned. Two organizations, the Junta⁷² and the Camara,⁷³ have been instrumental in accomplishing some good for the raisin industry but neither of these was organized, maintained,

⁷² Locally known as the "Junta Provincial de Defensa contra la Falsificacion de la Pasa Moscatel de Málaga."

⁷³ Locally called the "Camara Oficial Pasera de Levante."

or aided financially by the government. The Camara, otherwise known as the Official Raisin Chamber of the Levant, in Denia (Alicante), is no longer in operation. The Junta, or the Muscatel Raisin Defense Council of Málaga operated until January 11, 1933, when it was replaced by the Málaga Muscatel Raisin Committee. The original plans for these organizations, as well as later changes, were initiated by the raisin industries at Málaga and Valencia-Alicante. The only part the government played in connection with the activities of these two organizations was to authorize their existence and approve changes in their regulations from time to time. For this reason, one cannot call the establishment of these organizations direct government assistance. Government officials, however, have served on the governing committees of both organizations, partly as a matter of policy so as to have a neutral member present, but they have also directed their activity along the lines of the economic policy adopted by the government, particularly in recent years.

The Junta at Málaga extended its activity only to the Muscat raisin industry of Málaga while the Camara dealt exclusively with raisins of the Valencia-Alicante district. During the time when the Camara was in existence, there was no collaboration between the two organizations. This, however, is not to be considered unusual since the two industries in Málaga and Valencia-Alicante face entirely different marketing problems.

THE JUNTA, OR MUSCATEL RAISIN DEFENSE COUNCIL

Purpose of the Junta.—The establishment of the Junta, i.e., the Muscatel Raisin Defense Council, was authorized by a royal order dated July 12, 1913. The object of this council was to protect the reputation of the Muscat cluster raisins of Málaga on foreign markets.⁷⁴ Growers, warehousemen, and exporters demanded its formation, because they were suffering losses in trade as a result of the practice of adulteration, engaged in by irresponsible exporters who were mixing cheaper and inferior raisins, not Muscats, with genuine Muscats of Málaga and were cutting prices in the foreign markets accordingly. Moreover, the net weight of fruit was not always as indicated on the container. The Junta, therefore, was authorized to issue regulations covering compulsory standards for grades and weight, which, of course, were also intended to improve the quality of the pack and to strengthen the reputation of the Málaga product. This control feature is exercised by inspectors who

⁷⁴ It is interesting to note that some of the functions of the Junta are similar to those of the Dried Fruit Association of California and the Dried Fruit Export Association of California, although the Junta differs considerably from these California organizations in a number of respects.

examine as many containers of each shipment as deemed necessary. The Junta has the right to confiscate fruit that is not packed in accordance with the regulations, and to assess fines. The expenses for the work done by the Junta are covered by a levy per container exported.

In the course of the years, many changes have been made in the grade regulations and other characteristics of the Junta,⁷⁵ but the principle of its activity has remained the same since 1913. A royal order of August 21, 1930, provided that the membership of the Junta would be renewed annually by the election of four raisin growers and four exporters. In addition to these, the Junta has two government officials for president and secretary. The president is the Chief Agricultural Engineer of the State Service of Agronomy, in the Province of Málaga. Two members of the Junta, together with the two government officials, constitute a Permanent Committee, which enforces the standards and regulations issued by the Junta and supervises the work of the corps of expert examiners. The levy to cover the operating expenses of the Junta amounts to 7 Spanish cents⁷⁶ for each case of 10 kilograms exported. Of the 7 cents received, 3 cents go to the examiners, 3 are used to advertise Málaga raisins, and 1 cent is returned for the general expenses of the Junta.

Export Regulations and Control Under the Junta.—In order to secure permission to store and pack raisins, every raisin exporter in the Málaga district of Spain must be inscribed in a register kept by the Ministry of National Economy. Also, before August 31 of each year, exporters, warehousemen, and middlemen had to make known to the Junta the locality of their packing houses; thus inspection of the packing sheds was made possible. Exporters must also indicate to the Junta their trade-marks. Containers must bear the register number of the exporter, the variety of raisin, and its quality within the standard types. If fruit from a preceding crop was exported during the new season, containers must have a label indicating the old crop year with the words, "Crop of the year" Only one variety of fruit was allowed to a container. Clusters must not be mixed with loose raisins of the same grade. A printed label inside the container must indicate the standard and must be printed in three languages and bear, in addition, the signature or seal of the President of the Junta.

The inspection of packed fruit ready for shipment takes place on the dock or on the railroad. As a general rule the fruit must be sound, suffi-

⁷⁵ See: Gaceta de Madrid: Royal orders of September 18, 1914; April 12, 1920; July 28, 1925; July 19, 1926; June 9, 1927; June 1, 1928.

⁷⁶ In January, 1930, this would have been equal to about $\frac{9}{10}$ cent in United States currency; in January, 1931, about $\frac{7}{10}$ cent.

ciently dried, and ripe. The term "Pasas moscateles de Málaga" (Muscat of Málaga) can be applied only to raisins actually produced in, and exported from, Málaga.

Price-Fixing Under the Junta.—The Junta is also authorized to fix prices for the different classes of Muscat raisins whenever it deems such procedure necessary. This provision was also included in former amendments pertaining to the functions of the Junta, and actual price-fixing took place in 1926–27 and 1929–30. A royal order of July 19, 1926, empowered the Junta for the first time to fix the export prices of Muscat raisins. The bulk of Málaga clusters is sold for Christmas consumption so that price regulation is more essential at the opening of the export season because heavy shipments are normally made in September. During the several years preceding 1926, prices had opened at relatively high levels only to drop immediately after the close of the demand for raisins for the holiday trade in the United Kingdom, the United States, and Australia. This price-fixing authority was expected to prevent such wide fluctuations in the foreign market.

Prior to 1926 Málaga exporters were allowed to ship on consignment. As a result, unsold stocks accumulated in London, the chief market, year after year, which tended to depress prices. Málaga exporters who were attempting to hold up the price, which, in the case of cluster raisins, can be done readily, found themselves undersold by a number of other Málaga exporters, who tried to get rid of their consignment stocks. Since 1925, consignment sales have been forbidden and the Junta has fixed a minimum price, which was determined by a special committee and which varied according to the grade of the fruit. This committee consisted of one producer, one merchant, and a member of the Junta.

In order to avoid selling under the minimum price a special corps of officials known as *reconocedores* (inspectors) was formed. These men served as compulsory representatives through whom the exporters had to make all of their purchases from packers or growers. The *reconocedores* received as fee for their work 2 per cent of the price paid. This arrangement naturally made them interested in buying at as high a price as possible.

Middlemen or brokers who operated packing sheds were not allowed to export on their own account. They were acting, so to speak, as representatives of the growers in selling to the *reconocedores*. They received a commission, fixed by the Junta, amounting to 4 per cent of the value of raisins sold. The rest of the sales price went to the grower, who, to some extent, became protected against exploitation. The grower had to give the broker or middleman an additional fee amounting to about 8 cents a

box as storage and fire insurance. These brokers as well as producers selling directly to the exporters through the *reconocedores* were obliged to give daily public notice of their transactions as to quantity and price. The Junta had the right to inspect the books of these men in order to assure that prices paid were not lower than the minimum price established. Packers or brokers were not allowed to hold stocks with speculative motives.

The minimum prices were changed every fortnight, or whenever a change was deemed necessary. At the end of 1926, the control of prices was suspended in order to give exporters every opportunity of disposing of stocks on hand.

Effect of Price-fixing in 1926 and 1927 Seasons.—The Junta was able to sustain prices for cluster raisins during the 1926–27 season by the measures above described. There were a number of factors that caused the export demand for Málaga raisins to fall off materially during 1926–27. Ordinarily this would have caused a great hardship to growers. The maintenance of fixed prices, however, made it possible for growers to realize a fairly good return in spite of reduced exports. Among the factors causing the reduction in exports that season were the following: (1) a shortage of large-sized clusters; (2) the low exchange value of the French franc (France is the second most important customer); (3) the British coal strike; and (4) the advance in the exchange value of the Spanish peseta.⁷⁷

The price-fixing activities of the Junta were vigorously objected to at the beginning of the season by the Association of Raisin Exporters, which has practically a monopoly of the cluster-raisin crop of Málaga. This Association also objected to the regulations issued by the Junta for the classification of clusters, saying that the preparation of the fruit in accordance with the regulations increased their cost by almost 100 per cent because only about half the quantities could be packed in one day. Some exporters, however, were in favor of continuing the price-fixing plan during the 1927–28 season. As the Spanish peseta at the beginning of the 1927–28 season continued at its comparatively high value,⁷⁸ there was recognition on the part of these exporters, at least, of the danger that a race in low-price quoting would begin in order to overcome the high value of the currency and to capture the early market.

The entire scheme remained in force unaltered for the 1927–28 season until December 15, 1927, when the market was again made free in an

⁷⁷ The peseta averaged 14.15 cents U. S. currency during January, 1926; in July it averaged 15.72 cents; in January, 1927, it averaged 16.05 cents and in April, 1927, the average was 17.64 cents.

⁷⁸ The equivalent of 17.09 cents in United States currency.

effort to move stocks. Toward the end of the season, however, there was an unusually large carryover, amounting to about 8,800,000 pounds. The price-fixing system and the regulation that the raisins had to be purchased through certain channels were blamed for this carryover. The various viewpoints regarding the matter were expressed in a general meeting of growers, brokers, packers, and exporters held about the middle of May, 1928. The majority pleaded for a return to the free market and for keeping the fixed classification of grades only, in order to prevent raisins other than Muscats from being labeled Muscatels, and to assure that the fruit shipped would be free from defective and improperly cured raisins and from mixed varieties.

Discontinuance of Price-fixing in 1928 Season.—As a result of these objections, the price-fixing scheme was abolished. The standards, however, remained in force as well as the prohibition against consignments. The latter feature was continued under a somewhat more severe form, e.g., the shipping applications were to be made in the form of sworn statements. Moreover, in order to give the work of the Junta a more official flavor the Civil Governor of the Province of Málaga was made President.

Even though official price-fixing was not continued, it is evident that the interests concerned derived some benefit from it. At any rate, the Executive Committee of the Raisin Exporters Association and representatives of the warehousemen or brokers got together and agreed upon unofficial opening prices for the 1928–29 season. These unofficial prices did not oblige either producers or exporters to abide by them but they are said to have formed a basis for opening export quotations. The opening prices were somewhat lower than the official opening prices of the two preceding seasons, and were fairly well maintained until the middle of November, up to which time over 75 per cent of the total production was sold. Moreover, the Málaga exporters of raisins to South America were in a special agreement during the entire 1928–29 season for the maintenance of price levels in order to eliminate the usual rate-cutting on shipments to those markets. Efforts to bring about similar agreements among exporters to the United Kingdom and French markets were unsuccessful.

Price-fixing Under the Spanish Raisin Pool, 1929 Season.—The government authorized the Junta to resume its price-fixing and regulatory functions during the 1929–30 season. Exporters had claimed that returns under the free market were more satisfactory than during the period of official price-fixing. But the growers claimed that they had been unfairly treated by exporters and demanded a return to fixed

prices and control during the 1929-30 season. During 1929-30 the local minimum prices for the various grades were fixed by the unions of agricultural coöperatives engaged in raisin growing. They had to communicate these prices to the Junta for approval. If the Junta disagreed with the prices, the Ministry of National Economy gave the final decision. Authority was provided for modifying the prices from time to time during the course of the season, according to stocks and export demand. The initiative for such modifications devolved upon the Permanent Committee of the Junta in coöperation with the unions, the warehousemen, packers or brokers, and the exporter association.

As in the preceding years, the brokers and warehousemen were not permitted to trade in raisins for their own account. A new system of controlling transactions was followed during the season. The warehousemen had to keep two stub books, one for entries and the other for withdrawals. Each book had three stub sections; one was kept by the warehouseman, one was given to the grower, and the third was handed over to the Junta. All particulars regarding each transaction were mentioned on these stubs, including the price. The warehousemen, moreover, had to form from their own group a Vigilance Committee of three which had to inspect the warehouses and examine the stub books.

The procedure actually followed in marketing the 1929-30 crop was tantamount to a monopoly. The *reconocedores*, or inspectors, resumed their activity under the direction of the Civil Governor of the Province of Málaga. In addition to controlling all transactions by the *reconocedores* system and prescribing a minimum price to be paid to growers, the Junta also fixed the minimum prices for the sale of Málaga Muscat raisins in foreign and Spanish markets.

Since the various markets offer different characteristics as regards trade practices and prices, the export market was divided into nine groups,⁷⁹ while Spain formed the tenth. The shippers had to join these groups according to the market catered to. The members of each group made special rules under which to carry on the trade. They also agreed on prices to be charged in their market. These prices were subject to approval by the Junta. It would have been difficult for the Junta to control the transactions and prices of all individual exporters under this arrangement. This difficulty, however, was eliminated by compelling

⁷⁹ These groups were: (1) United States and Canada; (2) United Kingdom and colonies; (3) France, Belgium, Italy and possessions; (4) Germany, Austria, Czechoslovakia, the Netherlands; (5) Scandinavian countries and Finland; (6) Portugal; (7) Brazil; (8) Argentina and Uruguay; (9) Cuba, Puerto Rico, Mexico, and Central America.

all exporters to join the Málaga Raisin Exporters Association and thus form a pool or cartel.⁸⁰

The above system remained in force for the entire 1929–30 export season. In September, 1929, the prices for each group of countries to which raisins were exported, were made uniform. Prices were maintained at a favorable level up to December although the maintenance of the high level somewhat curtailed sales. Stocks at the end of the season (March, 1930), however, were large, and as a result, prices had to be lowered considerably. Notwithstanding this fact, the greater part of the crop realized higher prices than market conditions appeared to justify, and on the whole, the price-fixing mechanism is said to have worked fairly well.

A royal order dated August 21, 1930, restored complete liberty of trade to the Málaga Muscat raisin industry. This order, however, did not abolish the Junta, but left as its functions the control over grade, quality, and weight. However, the 1930 order gave the Junta the right to resume its price-fixing and trade-control activities whenever such action was deemed necessary.

MÁLAGA MUSCATEL RAISIN COMMITTEE, 1933⁸¹

By a government decree of January 11, 1933, the Junta was dissolved and its functions, patrimony, and obligations transferred in their entirety to the "Málaga Muscatel Raisin Committee." The main object of the Committee was to market the unexportable surplus of Muscats of the Málaga district in the domestic Spanish market before the 1933 raisin crop came on the market, and it was set up to function up to August 30, 1933, only. The raisin surplus was practically expropriated since all owners of raisins, growers, warehousemen, or syndicates had to consign their unsold stocks to the Committee which stored them in a special warehouse in Málaga or left them in local storehouses under strict supervision. The delivered surplus of raisins was pooled by the Committee according to grades, and growers obtained loans on them from the official agricultural credit service through the medium of the Committee

⁸⁰ The Association itself seems not to have been very much in favor of this arrangement. In its publication, *La Pasa de Málaga* of October 15, 1929, it is pointed out that in the opinion of the exporters the regulative scheme is superfluous and that the Association accepts the principle of a compulsory pool only as a "necessary evil," because there is no sincere and spontaneous coöperation among exporters.

⁸¹ Greater detail regarding the organization and functions of this Committee will be found in a statement prepared by the author for the Office of the U. S. Agricultural Commissioner at Marseilles, France, under date of January 21, 1933, and issued as a four-page mimeograph release on Málaga raisin surplus to be marketed under compulsory pool scheme by the Federal-State Market News Service, Sacramento, California. February 6, 1933.

as soon as delivered. The Committee was directed to sell the surplus to any one who wished to buy raisins at minimum prices fixed by it from time to time and was to organize a campaign to increase domestic sales in Spain. Any unsold stocks on hand August 30, 1933, were to be used for wine-making.

THE CAMARA, OR OFFICIAL RAISIN CHAMBER OF THE LEVANT

The Camara, or Official Raisin Chamber of the Levant, was formed in 1927 to organize and regulate the raisin trade of the Valencia-Alicante district. The Valencia-Alicante raisin trade, which centers mainly in the city of Denia, was not interfered with by the government up to 1927. The main difficulty of the Valencia-Alicante industry was to obtain remunerative prices. Although an organization known as the Raisin Owners Association (*Sindicato de Tenedores de Pasas*) coöperated to a certain extent and fixed opening prices to be quoted by its members, there was a general lack of adequate coöperation in bringing about remunerative prices. Many exporters sent large shipments to the United Kingdom on short-time credit consignments without regard to the ability of the English market to handle them. The auction prices thus became demoralized, and naturally heavy depreciation followed in the home market.

To prevent this, and to bring about concerted action between the various groups of the industry, a series of royal orders was issued, dated January 31, March 9, and July 22 in 1927 and another on September 29, 1928, which in the aggregate, gave birth to the organization known as the Camara. A detailed description of the organization and its gradual development would fill a volume and is far beyond the scope of this study. The main principle of the Camara was to unite all growers and exporters for the purpose of outlining and carrying on a uniform policy on behalf of the local raisin industry. For that reason every grower and merchant was a member of the Camara and could express his viewpoint in its regular and extraordinary sessions. The activity of the Camara, however, was directly dependent upon the approval of the Council of National Economy of the Ministry of National Economy. Any decision taken by the Camara could, therefore, easily be overruled. As the Spanish dictatorship was in power simultaneously with the existence of the Camara and as the Council of National Economy delegated a special supervisor to the Camara, the decision of the actual grower members did not have much significance.

Administrative Organization and Financing of the Camara.—The Camara was administered by two committees which worked under the

direct supervision of the Council of National Economy. The first committee was the Committee of Direction, which outlined the policy to be followed and was presided over by the Civil Governor of the Province of Alicante. This Committee consisted of a grower majority elected by the growers (nine to twelve growers at least), three individuals with experience in the raisin trade, appointed by the government, the President of the Federation of Agricultural Syndicates, the Director of Customs in Denia, the above-mentioned special supervisor from the Council of National Economy, and a representative of the provincial section of the Council of National Economy.

The task of putting the recommendations of the Committee into effect was delegated to the second committee, known as the Executive Committee. This Committee consisted of two growers, elected by the above-mentioned Committee of Direction, and had as its president the President of the Federation of Syndicates. Other members were the representative of the provincial section of the Council of National Economy, the special supervisor (already mentioned), and three experienced traders appointed by the government. The Secretary General of the Camara was *ipso facto*, a nonvoting member of both of these committees.

The object of describing this complicated organization in such detail is to show first, that the exporters were scarcely represented since they had no one elected from their own group⁸² on the committees, and secondly, that speedy action could hardly be expected from an organization which had so much committee work, and finally, that the government reserved the main influence for itself.

A royal order of August 2, 1929, entrusted the management of the Camara entirely to the Executive Committee, which was reformed. One can say that during the whole period of the Camara's existence changes were continually under way. The new committee consisted of a president appointed by the government, the Chief of Customs, the Agricultural Engineer, the President of the local Federation of Agricultural Syndicates, and a notary. The significant feature of this Committee was that it contained no producers or exporters.

The Camara was financed by a levy on all raisins produced. This levy was assessed yearly by the Committee of Direction, which based its decisions in the matter on the data received by means of an annual census of the raisin acreage and production.⁸³ Twenty-five per cent of this income was supposed to be spent for propaganda purposes.

⁸² The government held the rather outspoken view that the growers were more interested in the Camara than were the exporters.

⁸³ The results of this census have never been made available.

Functions of the Camara.—The Camara was originally intended to be a permanent institution, occupied with rationalization of raisin growing and organization of marketing; actually it established compulsory grades and had some influence on transportation charges, export duties, and local taxes. Its inspectors were supposed to supervise the industry vineyards as well as packing establishments, to make soil analyses, advise and direct in methods of cultivation and drying, etc. There was also a provision for the formation of a credit branch of the Camara, which, however, never came into activity. Successful marketing was to be brought about by the establishment of branch offices in an indefinite number of markets, but the London office was the only one ever opened.

Fixing of Minimum Prices.—In order to bring about orderly marketing, the Camara was authorized to fix the minimum price at which dealers could buy from producers and the minimum price at which they could sell. These prices were to be based on the cost of production, world market prices, and demand from all markets. The quantity of raisins which could be shipped on consignment within a certain period was also fixed, as well as the grades which could be exported. In the second year of its existence the Camara allotted to each exporter a fixed amount which he could ship during the season to the various markets. The daily maximum to be exported by the individual shipper was also fixed. It is claimed, however, that this allotment was not based entirely on the amount of business usually accomplished by each exporter. As a result it created much ill feeling locally, although it did help marketing in the United Kingdom to a certain extent.

In the exercise of its price-control policy, the Camara required growers, dealers, and exporters to submit documents covering each transaction to show that the prices involved were not below its fixed minimum. This particular feature, however, constituted the weakest link in the Camara's activities. Even during the first season of its existence some exporters sold below the fixed price, despite their signed statement to the contrary. The Camara was severely criticized by exporters who complied with the regulations. The practice, however, was handled with great lassitude, so that eventually practically every one handed in the statements but sold at the price of their own choice. Furthermore, when prices in London were good, the Camara permitted more to be sent on consignment than the regulations permitted. This caused British buyers to have little faith in the Camara.

In addition to all of the above-mentioned hindrances and disadvantages, the expenses of the Camara were excessive in view of the small size of the industry and the low prices prevailing. Moreover, since this

organization was an institution of the dictatorship, it was abolished by the new government on March 15, 1930. The Valencia-Alicante raisin industry unquestionably needs some kind of an organization to help secure unified action in solving its problems, particularly under present competitive conditions and in view of the shift to seedless varieties. It is possible, therefore, that sooner or later a new organization may be created, although nothing is known about plans to this effect at the present time.

THE PERSIAN RAISIN INDUSTRY⁸⁴

The raisins produced in Persia are mostly seedless varieties resembling the Turkish sultana. The best kind of raisin produced, known as *sabsa*, can be sun-dried in only three days. It is usually dipped in a boiling solution containing sodium carbonate, before drying. The output of this kind is almost entirely exported. The *bedana*, the second best kind of raisin grown in Persia, is consumed almost entirely in Persia. A third kind, the *askari*, is used chiefly in wine production.

The growers dry their raisins on the bare ground or on blankets and then carry them to the villages and principal centers, where they are sold to small traders or brokers. These in turn arrange for transportation to exporting merchants, who are to some extent financed by foreign importers.

PRODUCTION TREND

No complete census has ever been made of agricultural production in Persia nor has there ever been issued an official estimate of raisin production. Estimates from unofficial sources, however, shown in table 35, have been submitted by American Consular officials. These rough production estimates, together with the export data in the same table, show the trend in production in the last twenty years and give an approxi-

⁸⁴ Based in part on information supplied by Mr. Earl S. Haskell, former Director General of Agriculture in Persia.

General sources used for this section in addition to those given in specific footnotes:

Arnois, Herbert. Persian and Russian raisins on the German markets. California Fruit News 83 (2239). June 6, 1931.

Fisher, C. B. The feudal system in Persia. Jour. Farm Econ. 13:621-629. 1931.

Knight, Jewell B. The existing state of Persian agriculture; opportunities for improvement, etc. League of Nations. 1926 (Mimeo.).

League of Nations. Commission d'enquête sur la production de l'opium en Perse. Rapport au conseil. 61 p. Imp. Réumes. Chambéry. 1927. (Publication de la Société des nations. XI. Opium et autres drogues nuisibles. 1926. XI. 10.)

Millspaugh, Arthur Chester. The financial and economic situation of Persia. 37 p. Published by the Imperial Persian government and distributed under the auspices of the Persia Society. 1926.

[Persia.] Administrator-general of the finances, quarterly reports. Teheran.

mation of the relative changes in commercial output from year to year since the World War. They indicate that Persia is not only a strong competitor with Turkey in the production of raisins but that she is probably the second largest raisin producer in the world after the United States. Both the trade estimates of Persian raisin production and the

TABLE 35
EXPORTS OF RAISINS FROM PERSIA AND UNOFFICIAL PRODUCTION
ESTIMATES, AVERAGE 1909-1913, ANNUAL 1921-1931

Year*	Production*	Exports*
	<i>short tons</i>	<i>short tons</i>
Averages:		
1909-1913	55,000	32,960†
1921-1925	44,800	19,961
1926-1930	42,980	19,563
Annual:		
1921	35,000	5,965
1922	45,000	11,088
1923	49,000	21,304
1924	55,000	30,774
1925	40,000	30,672
1926	44,000	14,458
1927	49,000	26,226
1928	49,000	21,876
1929	37,000	17,881
1930	36,300	17,374
1931	38,500	29,139

* Production data are for crop years; export data are for years beginning March 22. See text (page 86) for Nielsen's revised estimates of production for 1929-1932.

† Average for the years 1911-1913.

Sources of data:

Data on production are unofficial estimates.

Data on exports 1911-1913: from the Internatl. Yearbook of Agricultural Statis., 1924-25, table 121, p. 265. Data for 1921-1931: are derived from official Persian sources.

export data in table 35 agree in showing that post-war average supplies of Persian raisins have been about 12,000 tons less than the pre-war average. The annual data from 1921 to 1931 show no decisive trend in production.

These trade estimates of production are probably relatively, but not absolutely, correct. Revised estimates of Persian raisin production recently made by Nielsen⁸⁵ for the years 1929-1931 indicate that the old trade estimates for these years are too high.

On the basis of the official export data, for years beginning March 22, and estimated Persian consumption at home of about 10,000 tons of

⁸⁵ Nielsen, N. I. U. S. Agricultural Commissioner, Marseilles, France. Preliminary Report on the 1932-33 raisin and currant season of the Mediterranean basin. Federal-State Market News Service, Foreign Raisin Report No. 39:16-17, March, 1933. (Mimeo.) Sacramento, California.

raisins, Nielsen has estimated total Persian production for recent years at 28,000 tons in 1929 and in 1930, 48,000 tons in 1931, 15,000 tons in 1932, and possibly 30,000 tons in 1933. Revised estimates of Persian raisin production comparable to those of Nielsen for 1929–1932 are not available for years prior to 1929. Since these export statistics do not give shipments to foreign countries by crop years, they do not show the exact changes in exports from individual crops.⁸⁶ However, they show rather accurately what the trend in exports has been. If consumption of raisins in Persia has been fairly constant at about 10,000 tons, the figure used for recent years, the trend of production can easily be visualized by this addition to the export data in table 35. The export data alone are the best indication available of the trend of the competitive commercial output. Nielsen's revised data show average production of about 30,000 tons of raisins for the four years 1929–1932 while exports in recent years have averaged around 20,000 tons.

The Persian raisin industry experienced a temporary setback because of war disturbances but it has been recovering steadily during the past decade. Raisins are an important item in the daily diet of the Persians as well as an export commodity. Because of the relatively high value of raisins in proportion to their weight they have been able to overcome, to some extent, the handicap of the inadequate and costly transportation service of Persia and have therefore been one of the most important agricultural exports of the country. An average of nearly 21,000 tons were exported annually during the four years 1927 to 1930.

MARKET OUTLETS

Until 1930 the Persian raisin industry was almost entirely dependent upon the Russian market, which took about 95 per cent of the exports (table 36). The rest of the exports were distributed mainly to British India, Iraq, and small amounts to Turkey. One often encounters the statement that Persian raisins have competed very little with other

⁸⁶ In years of abnormally large crops preceded and followed by normal or smaller crops, the official export data as given for fiscal years beginning March 22 are probably considerably smaller than actual exports from such large crops. The reasoning involved in this conclusion is well illustrated by data on the 1931 crop-marketing season. Production in both 1929 and 1930 was about normal and exports for years beginning March 22 were about the same. Therefore, exports for the five months after March 22, 1930, were probably about normal for that period of the marketing season. However, in the official statistics for the year beginning March 22, 1931, the normal exports of this five-month period would be added to the raisin exports from the large 1931 crop up to March 21, 1932. However, exports from the large 1931 crop after March 22, 1932, are known to have been abnormally large, amounting to 11,844 tons for the period March 22 through July 21, 1932. Exports for the fiscal year March 22, 1931, to March 21, 1932, were, therefore, in all probability considerably smaller than the total tonnage actually exported from the large 1931 crop by the fall of 1932.

raisins in international trade, but this is only partially true for Russia and the other countries consuming Persian raisins would probably have imported raisins from other countries had it not been for the Persian product. Direct competition from Persian raisins, in markets outside Russia, was first experienced during the 1930-31 marketing season. Table 36 shows the big decrease in exports to Russia in that year and the

TABLE 36

RAISIN EXPORTS FROM PERSIA BY COUNTRIES OF DESTINATION, 1926-1931
(Year beginning March 22)

Destination	1926	1927	1928	1929	1930	1931
	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>
Russia.....	12,630	24,986	20,562	16,036	4,527	5,377
British India.....	1,088	861	845	887	1,283	1,486
Iraq.....	439	268	366	385	463	597
Germany.....	2	4	9	178	10,344	20,045
Turkey.....	175	42	16	340	176	89
Great Britain.....	1	*	10	6	188	629
Netherlands.....	*	*	*	*	152	72
Italy.....	*	*	*	0	120	604
France.....	*	*	*	16	89	49
Other countries.....	123	65	68	33	32	191
Total.....	14,458†	26,226	21,876	17,881	17,374	29,139

* If any, included in "other countries."

† Exports in 1926-27 were materially reduced because of the Russian embargo on Persian raisins during 1927.

Source of data:

Compiled from official Persian sources by U. S. Agricultural Commissioner, N. I. Nielsen, Marseilles, France. (See: Federal-State Market News Service, Foreign Raisin Reports [Mimeo.] Sacramento, California.)

increase in exports to European countries in which California raisins are marketed. In 1930-31, for the first time, direct exports to Germany became important, amounting to over 10,300 tons, or nearly 60 per cent of total Persian exports. A considerable part of the exports to Germany, however, probably represent shipments to Hamburg for reshipment to other countries.

Problem of Improving Quality.—Although Persian grapes are of excellent quality, the raisins made from them are generally inferior in quality on account of careless drying and processing by the grower and poor packing and possibly some adulteration after the raisins leave his hands. The government has not interfered with these practices, although it is recognized that the fruit would bring much more money if modern methods of drying and preparing for market were adopted. It should be remembered, too, that the raisins for export have, for the most part, been cured to meet the peculiar demands of the Russian markets, which

require a special preparation, generally sour, mixed with various seasonings, etc. Raisins so cured are unpalatable to other than Russian tastes and are generally unmarketable elsewhere. The Russian market has been catered to for so long a time that the Persian growers do not understand how to cure and handle for other markets. Probably the most important factor in extending the market into countries other than Russia is improvement in present methods of processing and packing.

According to Nielsen⁸⁷ it appears that an improvement in the quality of Persian raisins may reasonably be expected in the future. If proper drying and packing methods are employed, he states that the dipped Persian raisins could be brought up to a quality comparable with Smyrna sultanas and the Bidonas to a standard similar to the California natural Thompson Seedless raisin. Reliable information indicates that some improvement along this line has taken place in 1931 and 1932. Interests outside of Persia are reported to be pushing such improvements, which seems to be true since a few samples of dipped Persian raisins seen from the 1932 crop have compared very favorably with Smyrna raisins. Other samples seen were of dipped, unbleached raisins similar both in quality and color to the small and medium-sized Greek sultana raisins.

GOVERNMENT AID

The Persian raisin industry spreads over all the high table land of the interior, the three principal zones being Azerbaijan in the northwest, Shiraz in the south, and Khurasan in the northeast. The industry has developed into its present dimensions on the basis of natural economic equilibrium, for the government has not taken any special measures on behalf of raisin growing, although other industries have received considerable attention and in several instances financial support, particularly in the case of cotton, tea, and silk. For that reason, such stimulus as the industry may have received as a result of government action must be sought in legislation providing for the improvement of agriculture as a whole.

Taxation.—For many years the absence of a strong central government and the semi-independence of tribes and of entire regions retarded the development of agriculture and trade in Persia. After the revolution of 1921, however, conditions changed and it can be said that at present the economic situation of the country is fundamentally sound. Government finances have been reorganized since then and the complicated and

⁸⁷ Nielsen, N. I. U. S. Agricultural Commissioner, Marseilles, France. Preliminary report on raisin and currants in the Mediterranean basin, 1932-33 season. Federal-State Market News Service. Foreign Raisin Report No. 39:16. March, 1933. (Mimeo.) Sacramento, California.

burdensome taxation system revised so that "tax-farming" has been abolished and taxes have been reduced from 10 per cent to 3 per cent of farm incomes. Abolition of the old system of subletting the collection of taxes has been an essential step toward agricultural development, for peasants no longer need to fear that improvements will only increase the tax collector's receipts.

Rural Credit.—Under the dominant system of large landed proprietors most of the peasants are merely laborers, uneducated and living in relative poverty. Agricultural improvements, such as coöperative financing and marketing, have been difficult because of the selfish interests of the proprietor and the ignorance of the peasants. Under the landlord system loans in kind are made to the peasant at interest rates from 12 to 30 per cent. The small holders' operations, which are mainly in garden and vineyard cultivation, are usually financed by the village broker, which is frequently an unsatisfactory state of affairs and raises a serious obstacle to the development of an improved raisin-marketing system.

The establishment of a State Agricultural Bank has been contemplated by the government, since the banks now operating in Persia confine themselves purely to the banking business and trade financing and are not allowed to make loans on farm lands. The National Bank, founded in 1927, with a small capital supplied by the government, was originally intended to encourage agriculture as well as industry and trade, but has not done so. It was recently proposed to add \$5,000,000 to the capital of this bank for loans to assist agricultural development, but as yet it has very little capital. Undoubtedly the establishment of an efficient rural credit system, particularly for small holders, would greatly benefit the Persian raisin industry.

Agricultural Education.—Of all the important raisin-producing countries of the world, agricultural conditions in Persia are said to be the most backward. The most primitive methods of irrigation, culture, and processing of farm products are still in vogue. The Persian peasant is said to be intelligent, but a system of agricultural education is only in its infancy. In 1923 the government established an agricultural school at Teheran with the intention of sending the students trained there into the different parts of the country for extension work. The school also arranged agricultural exhibits, especially displays on the use of agricultural machinery. This machinery is also used on the state farms.⁸⁸ Up to the present, only one of the model farms attached to the agricultural school has an experimental vineyard. The government also sends out a

⁸⁸ Fatch, Moustafa, Khan. The economic position of Persia. 98 p. P. S. King and Son, Ltd., London. 1926.

number of students to study cultivation methods abroad. One of these has studied raisin-grape growing and manufacturing in California and is planning to introduce improvements in Persia.

Irrigation.—Rainfall in the raisin-growing regions of Persia averages only 2 to 15 inches so that irrigation of vineyards is the usual practice. The methods, however, are primitive, although it is said that an unusually large portion of available water is effectively utilized for irrigation, in spite of the fact that there are very few dams for impounding spring flood waters. It seems unlikely that the government will undertake a program of irrigation development in Persia. For one thing, the expense involved would probably be prohibitive, since much of the construction material and equipment would have to be imported and transportation into the interior would be very expensive. Even though water is the limiting factor to agricultural expansion in Persia and modern irrigation construction is unlikely, available information indicates that with improved methods of processing, marketing, and transportation, Persia might easily be induced to double her present raisin output.

Transportation.—The prevailing inadequacy of transportation facilities is one of the most important items hindering the development of the raisin industry. Persia is situated very favorably at almost equal sea-travel distance to eastern and western markets, besides having a very good outlet in Soviet Russia for her fruit. The trade with Russia is handled mostly through the Caspian Sea ports, particularly Pevahli. Other accommodations for shipping overseas are very poor indeed. Russia has established a service between Odessa and Bushire in the Persian Gulf, via Suez. A British and a German line also have regular service to Bushire. The government intends to build an entirely new port at Bandar Shapur, which is to be the southern terminus of the projected North-South railroad. This railroad, part of which has already been constructed by American and German interests, will run from the Caspian Sea to the Persian Gulf. When completed it will be of the utmost importance to the raisin-growing regions located in the northwest and northeast of the country, particularly for shipping fruit to India and the Far East. The total length of the railroad will be 963 miles. This will mean a land transportation period of only 5 to 10 days as compared with the present 30 to 40 days required by caravan. It will be many years, of course, before the railroad is completed and also before markets for Persian raisins in the thickly populated Far East will have been secured.

In the meantime, road construction will probably continue to make progress. In fact, the transportation in vogue, i.e., by caravan, on camel, or donkey's back, is vanishing rapidly. The government has been devot-

ing a fair measure of attention to road construction and as a result truck transportation is increasing. The government itself has acquired and is operating trucks. Continued development of truck transportation should help to increase the export movement of raisins by steamer from the Persian Gulf ports. Freight rates for truck transportation are declining. Five years ago a premium of about 100 per cent was charged for truck transportation over the caravan transportation rate. This premium was reduced to 20 per cent in 1927. It has practically disappeared on certain routes at the present time.

The raisin-growing district in northwest Persia has the potential advantage of being able to ship over the Northern Railroad from Julfa via Tiflis across Soviet territory to Batum, a Russian Black Sea port. Hence raisins from this district have convenient access to the markets of Rumania and southeastern Europe. According to a commercial agreement (October 1, 1927) between Soviet Russia and Persia, exports from Persia may be shipped through Russia without a special license and limitation. This agreement also authorizes the use of the Caspian Sea for shipping fruit from a Persian port to Baku, transporting it thence by rail to Batum.

FUTURE PROSPECTS

From the preceding discussion one may justly conclude that prospects for the long-time improvement in the Persian raisin industry seem bright. When the Persian government decides to give special attention to the raisin industry, by improving sanitary conditions (and it will eventually do so because the dried-fruit item is important in the trade balance), a demand for Persian fruit will undoubtedly arise in countries, which up to the present have not taken the Persian product because of the availability of cleaner and better raisins from other sources. The big increase in exports to Germany since 1929 seems to be in line with such a development.

The potential foreign markets for Persian raisins are especially interested in the development of the Persian raisin trade because of the reciprocal trade relations that might grow out of such an arrangement, particularly the possibility of expanding outlets for manufactured goods without encountering the obstacle of prohibitive tariffs.

The potential increase in the productiveness of existing Persian vineyards and also of new vineyards is difficult to gauge. Little is known about yield per acre, cost of production, or the probable acreage suitable and available for raisin production. However, it is said that over a period of years Persia could double her raisin output. Nielsen states that no definite data on the trend of raisin-grape acreage in Persia are avail-

able, but that statements have been made to the effect that in 1924, 1925, and 1926 plantings were rather extensive, but whether or not much has been planted since then is not known. His estimates of production for the four years 1929–1932 average 32,000 tons. The production of 1931, 48,000 tons, however, is sufficient evidence that in favorable years Persia can produce and export large quantities of raisins. If the Persian industry can continue to exist in spite of its handicaps and Russia does not again absorb a large majority of its raisins, other producing countries can expect continued competition from Persian raisins in European markets, particularly as the quality of the exported pack is improved.

THE RUSSIAN RAISIN INDUSTRY^{89, 90}

Grapes are grown in many parts of Russia but raisins are produced on a commercial scale only in Russian Turkestan, the territory lying just north of Persia and Afghanistan and stretching 1,200 or 1,300 miles east of the Caspian Sea. The greater part of the western two-thirds of this territory is desert but in eastern Turkestan are numerous large valleys in which crop production on an extensive scale is made possible by irrigation from the rivers which have their source in the neighboring snow-capped mountains. The arid climate of Turkestan with hot, dry summers and autumns and relatively cold but short winters is well adapted to the production of cotton, rice, and dried fruits under irrigation, which natural tendency the Soviet government is assisting.

Drying of fruit on a commercial scale in Turkestan has naturally resulted from climatic conditions similar to those in the San Joaquin Valley favorable to fruit growing under irrigation and to sun-drying the fruit after harvesting, together with the fact that it has always been

⁸⁹ General sources used for this section in addition to those given in specific footnotes:

Arnois, Herbert. Persian and Russian raisins on the German market. *California Fruit News* 83 (2239). June 6, 1931.

Encyclopedia of Russian exports, vol. 2. 1925.

Popow, M. G. Crops of the U. S. S. R. 1930.

Russian Ministry of Agriculture. A sketch of the condition of arboriculture, gardening and viticulture in Russia. 1914.

Shitt, P., and I. Soklow. On the new roads—results of the new economic policy. ⁹⁰ This chapter on the Russian Raisin Industry was written by S. W. Shear, Associate Agricultural Economist in the Experiment Station and Associate Agricultural Economist on the Giannini Foundation, largely on the basis of translated Russian literature. Acknowledgments are due to Dr. Lazar Volin of the Foreign Agricultural Service Division of the United States Department of Agriculture, Bureau of Agricultural Economics, and Mr. B. Kaplan, student translator, for searching and translating the Russian literature. The following persons were generous in giving information based upon their observations while traveling in Russian Turkestan: Messrs. F. J. Mulligan, A. P. Davis, G. H. Carr, L. D. Wilbur, and Professor W. W. Mackie. Mr. Mulligan spent the year 1929 in Uzbekistan supervising the installation of raisin and dried-fruit processing and packing machinery in two plants erected for that purpose by the Soviet government.

difficult and costly to transport fresh fruit to the distant consuming markets of Russia. Gradual improvement in refrigerator-car service has been taking place in recent years, but still the long haul must remain expensive. Raisins, apricots, and cherries are the chief dried fruits produced in large commercial quantities in Russian Turkestan. About half of the grape production is said to have been dried in recent years.

PRODUCTION AND SHIPMENTS

Kind of Raisins.—The Turkestan term for raisins is *kishmish*, whereas the Russian term is *usum*. The chief raisin varieties grown in Turkestan and the chief types of raisins produced are the same as those in Persia and known by the same or similar names. In the European dried-fruit trade, therefore, frequently little or no distinction is made between raisins of Persian and of Turkestan origin, partly because of the similarity in marketing methods and the fact that in the past Persian raisins have so largely moved into Russian and other European markets via Turkestan over the same transportation routes. Jaroshewich⁹¹ states that the chief varieties of raisin grapes grown in Turkestan are the White Kishmish or Ak-kishmish, the Black Kishmish or Kara-kishmish, the Maska or Angur-kalian, and the Muscat. The White Kishmish is the Sultanina, a white seedless grape like the California Thompson Seedless or the grape from which Turkish sultana raisins are made. A large majority of the commercial raisin output is of this variety. In the Samarkand region, where it is the most popular variety, it constitutes about 75 per cent of all vines. Several different kinds of raisins, depending upon the method of drying, are made from this variety of raisin grape.

Methods of Drying.—Three methods of drying grapes are used.⁹² *Avtobi* is direct sun-drying which produces the natural (undipped) type of raisin. It is the most common method employed. The *bedana*, the best known Turkestan raisin of this type, is made from the White Kishmish grape by sun-drying for 14 to 16 days. *Soyagi* are raisins dried in the shade in special drying barns with narrow openings in the walls for circulation of air. When dried in this way, the raisins produced from the White Kishmish are green in color. *Abdjet* are raisins made by sun-

⁹¹ Jaroshewich, N. K. Fruit and grape industry in Uzbekistan. Contribution of the Agricultural Department of Central Asia, University at Tashkent. Series 4-B Economics 2d ed. p. 327. 1929. The author is Professor of Farm Organization in the State University of Central Asia.

⁹² Technical Encyclopedia 9:35-37. Moscow, 1929. [Original in Russian. Translation by Michael Shapovalov, Senior Pathologist, United States Department of Agriculture.] Also Jaroshewich, N. K. Fruit and grape industry in Uzbekistan. Contribution of the Agricultural Department of Central Asia, University at Tashkent. Series 4-B. Economics. 2d ed. p. 256. 1929.

drying after dipping the grapes in a boiling solution of potash or mixture of potash and lime. As in Persia, the raisins made in this way from the White Kishmish are commonly known as the *sabsa* raisins and are the chief kind exported.

Several less well-known types⁹³ of raisins are produced in Turkestan, among which are the *vassarga*, the *tsilaga*, the *guermian*, the *shigani*, and the *kara-maize*. The last two are prepared from the Black Kishmish which is a medium-sized seedless grape of a black-violet color grown chiefly in Zeravshan Province, and is similar to, if not the same as, the variety known as the Black Monnuka in California. The Angur-kalian variety, known locally in Samarkand as Maska, is a very large golden-yellow grape with a very high percentage of flesh as compared to seed. The *guermian* type of raisin is produced from this variety. The Muscat appears to be relatively unimportant in Turkestan, being grown in only two or three provinces.

Pre-War Production in Turkestan.—Prior to the establishment of the Soviet government, raisins had been produced in Russian Turkestan for many years under cultural and marketing conditions similar to those prevailing in neighboring Persia. As early as 1902 shipments of raisins from Russian Turkestan via the Transcaspian railroad amounted to as much as 22,000 tons in a year. Blagowietschensky⁹⁴ states that during the years 1913–1915 rail movement of raisins from Russian Turkestan averaged 26,835 tons a year.⁹⁵ However, the Russian Technical Encyclopedia⁹⁶ states that nearly 33,000 tons of raisins were shipped from Turkestan annually before the World War. Part of the tonnage reported as shipped from Turkestan may have consisted of Persian raisins imported by caravan across the northern boundary of Persia. Just how much, however, is not stated in the literature available to the author. As a matter of fact, data on the quantity of Persian raisins imported by Russia and re-exported are not at hand even for recent years.

Barberon⁹⁷ states that before the War Turkestan is reported to have had an annual production of about 187,000 tons of grapes of which only

⁹³ Jaroshewich, N. K. Fruit and grape industry in Uzbekistan. Contribution of the Agricultural Department of Central Asia, University at Tashkent. Series 4-B. Economics. 2d ed. p. 254–256, 327. 1929.

⁹⁴ Blagowietschensky, Georg. Die wirtschaftliche Entwicklung Turkestan. [The agricultural development of Turkestan.] Rechts- und Staatswissenschaftliche Studien 46:1–197. Emil Ebering, Berlin. 1913.

⁹⁵ Zerewitnoff, F. V. Chemistry and technology of fresh fruits and vegetables (translated title, original in Russian). p. 244. Moscow. 1930.

⁹⁶ Technical Encyclopedia 9:35–37. Moscow. 1929. [Translated title, original in Russian.]

⁹⁷ Barberon, M. G. La viticulture dans l'U. S. S. R. In extracts from: La Vie Economique des Soviets. Reproduced in: Bulletin International Du Vin 4(37): 111–112. 1931.

about 10 per cent were utilized for wine-making and the balance dried for raisins or consumed fresh. Although the fresh grapes began to be shipped from Turkestan when the Tashkent railroad was opened in 1906, fresh shipments were relatively small until after the War. Baulin⁹⁸ indicates that about 1928 or 1929 approximately 34 per cent of the normal grape production of Uzbekistan was shipped out fresh. If only about 15 per cent of the pre-war production were consumed fresh, about 150,000 tons would have been available for drying, which, at a drying ratio of 3.625 to 1, would indicate total production of about 40,000 tons of raisins. Allowing for some local consumption of raisins this rough estimate of pre-war raisin production does not seem far out of line with the available data quoted on rail shipments.

Post-War Production in Uzbekistan.—About two-thirds of the cultivated area of Turkestan is in the Socialistic Soviet Republic of Uzbek, or Uzbekistan, in which the greater part of the dried-fruit and raisin-grape acreage is located. The ancient city of Samarkand appears to be the center of the raisin industry, holding a position there similar to that of Fresno in the raisin industry of California. In the Samarkand region, as in Fresno County, the majority of the fruit acreage is in grapes and most of the grapes are raisin varieties. This one region is said to provide 90 per cent of the raisins exported.⁹⁹

In 1929 the Technical Encyclopedia¹⁰⁰ states that shipments of raisins from Uzbekistan "in recent years" has averaged about 15,000 tons which agrees with data presented by Baulin¹⁰¹ who states that an average of about 25,000 tons of raisins were dried in Uzbekistan in 1926 and 1928 of which about 30 per cent were taken off the market by private producers, largely for making alcohol,¹⁰² and about 10 per cent were con-

⁹⁸ Baulin, D. I. Processing of orchard, vineyard, and garden products of Uzbekistan. In: Proceedings of the First Uzbek Conference on Fruit, Grape, and Garden Culture and Apiculture. p. 92. January 16-23, 1929. Published by Peoples Commissariat for Agriculture of the Uzbek S. S. Republic, Samarkand. 1929. [Original in Russian, translated title.]

⁹⁹ Berezkovskii, E. A. The vine industry of Uzbekistan. In: Journal for Reconstruction of Farming, p. 117. April, 1929. [Translated title, original in Russian.]

¹⁰⁰ Technical Encyclopedia 9:35-37. Moscow. 1929. [Original in Russian. Translation by Michael Shapovalov, Senior Pathologist of the United States Department of Agriculture.]

¹⁰¹ Baulin, D. I. Processing of orchard, vineyard, and garden products of Uzbekistan. In: Proceedings of the First Uzbek Conference on Fruit, Grape, and Garden Culture and Apiculture. p. 96. January 16-23, 1929. Published by Peoples Commissariat for Agriculture of the Uzbek S. S. Republic, Samarkand, 1929. [Original in Russian, translated title.]

¹⁰² Jaroszewich, N. K. Fruit and grape industry in Uzbekistan. Contribution of the Agricultural Department of Central Asia, University at Tashkent. Series 4-B. Economics. 2d ed. p. 4-5. 1929. He states that about 13 per cent of the raisin output is utilized in the manufacture of wine and alcohol.

sumed on the home farm, and the balance of about 60 per cent were available for shipment. According to Jaroshewich, the Bureau of Plans of the Uzbek Republic reported that the Soviet government purchased nearly 15,000 tons of its raisins in 1926. About 95 per cent came from the Samarkand or closely adjoining districts. Baulin reports that government and coöperative farms produced about 7,600 tons of commercial raisins from the small crop of 1927, but does not state how many were produced on peasant farms and other private holdings. About 53 per cent of this tonnage was *sabsa* raisins and 28 per cent *bedana*.

Both Baulin and Jaroshewich state that about one-half of the grape crop of Uzbekistan has been dried in recent years. Baulin reports that 48 per cent was dried in 1928, 34 per cent consumed in fresh form, and 18 per cent used for the manufacture of wine, sirup, and alcohol. Jaroshewich¹⁰³ quotes data on the total production of grapes in Uzbekistan as 158,000 tons in 1914, 83,000 tons in 1925 (a year of unusually low yields), nearly 160,000 tons in 1926, 132,000 tons in 1927, and 210,000 tons in 1928. If one-half of the average production of 167,000 tons of grapes in the years 1926–1928 were dried, at the drying ratio of 3.625 to 1 used by Jaroshewich, the raisin output would have averaged approximately 23,000 tons for Uzbekistan alone.

FOREIGN TRADE

Imports.—In pre-war days Russia was on a substantial import basis for raisins, being second only to the United Kingdom in the quantity imported. Table 37 shows that the quantity of raisins and currants imported into Russia in the years 1909–1913 averaged about 70,000,000 pounds, very few of which were currants. About 98 per cent came from Persia, and, presumably, these were all raisins. Part of the pre-war Russian imports of raisins, however, were consumed in territory which is not now in the Soviet Union—namely, Poland, Latvia, Esthonia, and Lithuania. Of these, Latvia has been an important market for Russian dried fruit in recent years (see table 38). Russian imports of raisins and currants in recent years are shown by table 37 to have declined to only about half the pre-war average. A very large majority of these, however, are still obtained, as in pre-war days, from Persia.

Exports.—Before the War, very few raisins were normally exported from Imperial Russia and only within the last five years have exports from the Soviet Union become of importance. Exports as shown in table

¹⁰³ Jaroshewich, N. K. Fruit and grape industry in Uzbekistan. Contribution of the Agricultural Department of Central Asia, University at Tashkent. Series 4-B. Economics. 2d ed. p. 4–5. 1929.

37 probably cover reexports of Persian raisins as well as exports of those actually dried in Turkestan. The fact that a considerable part of Persian raisins has been exported directly to European countries other than Russia in the last two years may largely account for the decline in exports of raisins from Russia in 1931 (see table 36).

Unfortunately, Russian statistics do not give exports of raisins by countries of destination separately. However, a clue to the relative importance of the chief markets importing raisins from Russia is given

TABLE 37
RUSSIAN RAISIN AND CURRANT IMPORTS AND EXPORTS, 1909-1915,
1927-1932

Calendar year	Imports of raisins and currants	Exports of raisins
	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1909.....	76,909	138
1910.....	71,334	3,652
1911.....	61,674	20,586
1912.....	61,861	2,434
1913.....	78,852	295
1914.....	60,310	320
1915.....	63,049	1,133
1927*.....	45,501	2,829
1928*.....	41,978	12,103
1929*.....	30,825	15,267
1930.....	23,203	11,103
1931.....	5,562	5,567
1932.....	19,795	19,709

* Year beginning October 1.

Sources of data:

1909-1915: from Internatl. Yearbook Agr. Statist., Rome.

1927-1932: from Foreign Trade of U. S. S. R., Commissariat of Foreign and Domestic Trade.

by the data in table 38 on all Russian dried-fruit exports shipped to each of the most important markets. The fact that raisins have constituted a large majority of the total gives these data considerable significance. Moreover, they are partially supplemented by the data shown in table 39 which give the quantity of raisins imported from Russia in the last few years by a few important markets.

The German statistics, however, are for imports for consumption and do not include the quantities that may have moved via the free port of Hamburg to other countries. In the case of Persian raisins this movement is known to have been a large one in 1930-31, for official Persian trade statistics show exports of raisins to Germany of 10,344 tons in the year beginning March 22, 1930, whereas the German trade statistics report raisin imports for consumption from "other countries" of 4,370

TABLE 38

EXPORTS OF DRIED FRUITS FROM SOVIET RUSSIA BY COUNTRIES OF DESTINATION AND
KINDS OF FRUIT, YEARS BEGINNING OCTOBER 1, 1927 AND 1928,
CALENDAR YEARS 1929-1932

Destination	1927-28	1928-29	1929	1930	1931	1932
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Germany.....	1,179	4,528	5,168	3,878	3,342	15,265
Latvia.....	2,634	4,830	6,382	8,241	1,601	503
Great Britain.....	73	4,279	3,585	761	121	3,170
Netherlands.....	650	1,726	1,457	137	2,205	3,071
France.....	1,171	3,607	3,100	875	*	1,623
Estonia.....	*	13	79	170	1,316	809
Norway.....	*	13	26	66	862	1,076
Austria.....	*	187	340	130	137	454
Belgium.....	*	183	340	*	33	926
Czechoslovakia.....	64	*	112	322	66	*
Mongolia.....	64	33	22	66	267	262
Other countries.....	49	211	1,107	189	262	575
Total, all dried fruits.....	5,884	19,610	21,718	14,835	10,212	27,734
Raisins.....	2,829	12,103	11,162	11,103	5,567	19,709
Apricots.....	2,044	5,333	8,307	2,674	3,757	6,223
Prunes.....	—†	1,171	1,391	577	156	201
Apples.....	—	37	71	141	2	11
Others.....	—	966	787	340	730	1,590

* If any, included in "other countries."

† Dashes indicate data not available.

Sources of data:

Compiled from Foreign Trade of U. S. S. R., Commissariat of Foreign and Domestic Trade, by the Foreign Agricultural Service of the U. S. Dept. of Agr. and the Bur. of Foreign and Dom. Com.

TABLE 39

IMPORTS OF RAISINS FROM RUSSIA INTO GERMANY, NETHERLANDS,
AND THE UNITED KINGDOM, 1925-1932

Year	Germany	Netherlands*	United Kingdom
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1925.....	0	9†	0
1926.....	0	24†	0
1927.....	274	30	933
1928.....	1,102‡	5†	896
1929.....	2,898‡	1,400‡	2,491
1930.....	2,176‡	1,024‡	3,571
1931.....	788‡	2,478‡	153
1932.....	322‡	—§	—

* Sultana raisin imports only.

† Imports from countries not specified which would include Russia if any imports were received directly from it.

‡ Years beginning September 1; calendar year used for all other data.

§ Dashes indicate data not available.

Sources of data:

Data for Germany and Netherlands compiled by U. S. Agricultural Commissioner Nielsen from official trade statistics. Current data may be found in Federal-State Market News Service, Foreign Raisin Reports. (Mimeo.) Sacramento, California. Data for United Kingdom compiled from: Annual statements of the trade of the United Kingdom with foreign countries and British possessions.

tons for the same period. The bulk of these were probably from Persia as "other countries" exclude Turkey, the United States, Greece, Russia, and Italy.

ACREAGE

In 1910 the Turkestan acreage of all kinds of grapes was nearly 17 per cent of the 509,000 acres in what now constitutes Soviet Russia.¹⁰⁴ By 1926 it had risen to slightly over 20 per cent of the total, then about 437,000 acres,¹⁰⁵ and in 1928 to about 21 per cent.

Berezkovskii¹⁰⁶ states that prior to the World War there were approximately 82,000 acres of grapes of all kinds in the territory now included in Uzbekistan. However, the vineyard area was reduced as a result of the War and did not expand appreciably until after 1924. According to the Soviet Planning Department, the same author says that Uzbekistan vineyards covered slightly over 79,000 acres in 1926, but by 1928 had grown to about 82,000 acres,¹⁰⁷ which constituted about 83 per cent of the total acreage of grapes in Turkestan. Nearly half of the vine acreage of Uzbekistan was in the Samarkand region in 1928.

PROSPECTS FOR EXPANSION

The first Five-Year Plan of the Soviet government contemplated doubling the acreage in grapes in Uzbekistan from 1928 to 1932. Although acreage and production data since 1928 are not available, Americans who have traveled in Turkestan believe that the vineyard increase has fallen far short of the Soviet goal. The government is probably being more immediately successful in increasing the quality of the dried-fruit output rather than the quantity.¹⁰⁸ Within another five or ten years, however, the quantity of the commercial raisin output might be substantially increased. Unless Russian raisin consumption grows ac-

¹⁰⁴ Not including Bessarabia and other lost territory. *Annuaire Statistique Agricole*. Moscow, 1928.

¹⁰⁵ Jaroshevich, N. K. *Arboriculture and viticulture of Uzbekistan*, 1926. [Original in Russian, translated title.]

¹⁰⁶ Berezkovskii, E. A. *The vine industry of Uzbekistan*. In: *Journal for Reconstruction of Farming*, p. 117. April, 1929.

¹⁰⁷ Although these acreage data are from official sources and apparently the best available, they are probably only approximate. After bringing together and comparing estimates of the Russian Turkestan grape acreage from different sources for the years for which data are available from 1907 to 1928, and after attempting to secure reliable acreage data by provinces or counties from the Statistical Bureaus of the Turkestan Soviet Republics in 1925, M. A. Tupinov has concluded that no accurate data of this kind have ever been available for Russian Turkestan. (Essays on grape growing in middle Asia. [Original in Russian, translated title.] *Bulletin of Applied Botany of Lenin Academy of Agricultural Sciences in U. S. S. R.* 24:81-83. 1929-1930.)

¹⁰⁸ Elliott, T. H., and F. J. Mulligan in letter of July 28, 1932.

cordingly, increased exports to other countries would naturally result. According to Berezkovskii¹⁰⁹ the age distribution of the vineyards of Uzbekistan in 1928 was as follows: one to five years old, 3 per cent; five to ten years, 12 per cent; ten to twenty-five years, 35 per cent; and twenty-five to fifty years old, more than 50 per cent.

In the past, grape growing has been a small-scale industry carried on by peasant farmers. Much of the vineyard acreage is within the mud walls of gardens and its expansion is limited by this fact and also by the small size of most native peasant farms, which are said to range commonly from only 5 to 15 acres in extent, with only about an acre of grapes or less per farm.¹¹⁰ In discussing the prospects for increased grape production in Uzbekistan in 1929, Berezkovskii also states that the planned development of the grape industry is a task difficult of realization because the government is faced with the problem of the reconstruction of the whole farming system in many parts of Uzbekistan. Moreover, he says that conditions in the vine industry are rather unsatisfactory. There is a large percentage of old vineyards many of which have not been properly cared for; the soil has become exhausted in many instances because of lack of proper fertilizer, and cryptogamic disease and other diseases and pests have reduced yields. Peasant yields per acre, he states, have been reduced to almost half the pre-war average or from 3,600 to 4,500 pounds of grapes per acre to 2,200 to 2,700 pounds.

There are a number of other factors that would appear to be retarding the expansion of grape production and raisin exports of Uzbekistan. Grape growing is not as well adapted as many other crops to large-scale government farms under machine methods on the flat valley floors, where expansion of the cultivated acreage is largely taking place. Much of the unused acreage available for planting is adapted to growing cotton, and the Soviet government is said to be concentrating its efforts on expanding the acreage of this crop, which produces fairly good crops even on the flat alkali areas on the floors of the valleys.

The carrying out of official plans for vineyard expansion in Turkestan is also retarded by factors common to other crops. The native population is probably slower to adopt Soviet plans than Russian-speaking people in other parts of the Union. Lack of finances and bad management are known to have greatly handicapped the working out of government plans everywhere. In Turkestan, expansion of the cultivated area of all

¹⁰⁹ Berezkovskii, E. A. The vine industry of Uzbekistan. In: *Journal for Reconstruction of Farming*. p. 117. April, 1929.

¹¹⁰ Berezkovskii, E. A. The vine industry of Uzbekistan. In: *Journal for Reconstruction of Farming*. p. 117. April, 1929.

crops is largely dependent upon irrigation. Davis¹¹¹ states that "a very ambitious plan of irrigation construction [for Turkestan] was projected [by the Soviet government], but the world-wide business depression greatly crippled the markets for Russian exports, and it became necessary to curtail or postpone most of the work. Therefore little of the irrigation program has been carried out so far except the preparation of plans for future development."

THE AUSTRALIAN RAISIN AND CURRANT INDUSTRY¹¹²

The cultivation of vine fruits in Australia dates back to the early settlement which started about the beginning of the Nineteenth Century. Vine cultivation gradually spread from New South Wales to Victoria and South Australia, which are now the outstanding raisin-producing areas of Australia (see table 40). Western Australia and Queensland have not become important as raisin producers. Since the Australians are

¹¹¹ Davis, Arthur Powell. *Irrigation in Turkestan*. Civil Engin. 2(1):5. 1932. This article contains an interesting map showing the chief physical features of Turkestan and its principal cities and railroad routes. In 1911 and in 1929 Mr. Davis was employed to investigate the possibilities of irrigation development in Turkestan.

¹¹² General sources used for this section in addition to those given in specific footnotes:

Arndt, Franz Rudolf. *Fruit-growing under irrigation; under the climatic and geographical conditions pertaining to the Murray Valley*. 214 p. The Hassell Press, Adelaide. 1930.

[Australia] Bureau of Census and Statistics. *Official Yearbook*.

[Australia] Development and Migration Commission. *Dried fruits industry*. 12 p. Canberra. 1930.

[Australia] Development and Migration Commission. *Report on the dried fruits industry of Australia*. 55 p. Melbourne. 1927.

[Australia] Dried Fruits Control Board. *Fourth annual report, year ended 30th June, 1928*. 10 p. Canberra. 1928.

[Australia] Dried Fruits Control Board. *Fifth annual report, year ended 30th June, 1929*. 10 p. Canberra. 1929.

[Australia] Laws, Statutes, etc. *The Acts of the Parliament of the Commonwealth of Australia*. Melbourne.

Australian Dried Fruit News, published monthly. Renmark, S. A.

[Great Britain] British Economic Mission. *Report of the British Economic Mission*. 42 p. Canberra. 1929.

New South Wales. Laws, Statutes, etc. *The statutes of New South Wales*. Sydney.

Smith, Neil Skene. *Economic control; Australian experiments in "rationalisation" and "safeguarding"*. 306 p. P. S. King and Son, Ltd., London.

South Australia. Department of Agriculture. *The currant industry*. Bul. 68:1-12. 1912.

South Australia. Laws, Statutes, etc. *Acts of Parliament*. Adelaide.

South Australia. *Government Gazette*. Adelaide.

The Fruit World of Australasia, published monthly. Melbourne.

The Fruit World Annual. Melbourne.

Turnor, C. H. *Land settlement for ex-service men in the oversea dominions; report to the Royal Colonial Institute*. 63 p. The Saint Catherine Press, London. 1920.

Victoria, Australia. Laws, Statutes, etc. *Acts of the Parliament*, Acts 11-20, George V. Melbourne.

Western Australia. *Government Gazette*. Perth.

not a wine-drinking people and also because of the difficulties encountered in marketing their comparatively unknown wines in Europe, it was but natural that growers should shift to drying varieties. As a result, all of the above mentioned states, with the exception of Queensland, are raisin and currant producers of commercial importance.

TABLE 40

AUSTRALIAN RAISIN AND CURRANT PRODUCTION BY STATES, CALENDAR YEARS
HARVESTED, AVERAGE 1928-1932, ANNUAL 1926-1932

State	1926	1927	1928	1929	1930	1931	1932	Average 1928-32	
Raisins									
	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>per cent</i>
New South Wales.....	1,297	2,299	1,727	3,365	4,670	2,575	10,853	4,638	10.1
Victoria.....	19,684	36,832	22,530	43,183	43,885	24,703	30,385	32,937	71.3
South Australia.....	6,230	9,095	3,088	11,790	11,830	8,887	924	7,304	15.8
Western Australia.....	540	496	907	674	730	596	3,603	1,302	2.8
Total Australia.....	27,751	48,722	28,252*	59,012*	61,115*	36,761	45,765	46,181	100.0
Currants									
	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>	<i>per cent</i>
New South Wales.....	344	509	254	547	607	482	606	499	2.8
Victoria.....	6,929	7,586	4,094	10,639	9,980	8,698	7,873	8,257	45.8
South Australia.....	5,820	4,909	2,823	9,192	9,065	8,327	8,935	7,668	42.6
Western Australia.....	611	1,285	1,369	1,468	1,492	1,904	1,680	1,583	8.8
Total Australia.....	13,704	14,289	8,540*	21,846*	21,144*	19,411	19,094	18,007	100.0

* Totals given for 1928-1930 do not agree exactly with corresponding production estimates shown in table 2, which are taken from an unofficial source.

Sources of data:

1926-1930: from Off. Yearbook of the Commonwealth [Australia] 1931.

1931 and 1932: from the Australian Dried Fruits Association.

DEVELOPMENT OF THE INDUSTRY

The Australian raisin and currant industry is of recent development. The production prior to 1900 was relatively unimportant and it was not until 1912 that exports of raisins and currants for the first time exceeded imports. During the last years of the War, high prices stimulated new plantings. In addition, the conflict at arms between Turkey and Greece, the two important producers of raisins and currants, lasted until 1922. The Smyrna region (Turkey in Asia) was the battlefield during this conflict, and hence was unable to supply the consuming markets with adequate quantities of raisins. As a result of this situation, the United Kingdom market was undersupplied. Prices rose to more than double those of pre-war years.

In view of the prosperity enjoyed by the Australian growers during that period, the raisin and currant industry in that country was considered to be one of the most profitable agricultural enterprises in which one could engage. The Commonwealth government itself settled, by

TABLE 41

AUSTRALIAN RAISIN AND CURRANT PRODUCTION, 1902, 1904-1933

Calendar year harvested	Raisins (includes sultanas)	Currants	Calendar year harvested	Raisins (includes sultanas)	Currants
	<i>short tons</i>	<i>short tons</i>		<i>short tons</i>	<i>short tons</i>
1902*.....	1,953	334	1918.....	8,474	6,136
			1919.....	9,541	7,430
1904*.....	3,725	1,002	1920.....	15,726	8,042
1905*.....	2,184	1,047	1921.....	9,418	7,647
1906*.....	3,074	1,173	1922.....	15,121	9,080
1907*.....	6,398	1,461	1923.....	20,876	11,755
1908*.....	5,214	1,702	1924.....	33,063	17,040
1909*.....	5,462	2,037	1925.....	29,876	13,050
1910*.....	6,096	3,554	1926.....	27,751	13,704
1911*.....	6,388	3,733	1927.....	48,722	14,289
1912*.....	7,704	5,270	1928†.....	28,252	8,540
1913*.....	8,116	5,631	1929†.....	59,012	21,846
1914*.....	8,728	6,231	1930†.....	61,115	21,144
1915.....	8,394	3,119	1931.....	36,761	19,411
1916.....	13,836	7,875	1932.....	45,765	19,094
1917.....	10,313	6,760	1933.....	67,952	18,866

* Data for 1902-1914 are for Victoria and South Australia only. There are no records of the production of raisins and currants separately in New South Wales and Western Australia, but the combined production of raisins and currants in these two states was only 337 tons in 1913 and 378 tons in 1914.

† The low production for 1928 was due to the disastrous effect of a frost experienced over practically the whole of the River Murray Valley.

‡ Totals given for 1928-1930 do not agree exactly with corresponding production estimates shown in table 2, which are taken from an unofficial source.

Sources of data:

1904-1909: from California State Board of Agriculture. Statistical Report, 1917, p. 157.

1902, 1910-1930: from Off. Yearbook of the Commonwealth [Australia.]

1931 and 1932: from the Australian Dried Fruits Association, unofficial data.

1933: unofficial estimate from: Foodstuffs 'Round the World, Canned and Dried Foods 9 (57): 2. 1933.

means of a vast legislative scheme, about 2,500 Australian and English ex-soldiers as raisin and currant producers. According to a recent statement of the Commonwealth Minister of Markets and Migration, the number of raisin and currant growers now totals about 6,000, but about 40,000 people depend directly on the industry. This artificial introduction of new producers was looked upon very unfavorably by the pre-war growers. The result of the settlement scheme naturally was a rapid increase in the annual output of raisins and currants. This is clearly shown in table 41. Table 42 shows that most of the increase in raisin production in recent years has consisted of sultanas.

While the combined production of raisins and currants in the three years 1929-1931 averaged about 73,000 short tons, Australian home con-

sumption is estimated at about 12,000 to 13,000 short tons annually. The bulk of the output, therefore, is exported. It was but natural that some difficulty should be encountered by Australia in marketing a crop which increased so rapidly. When the newly settled areas came into production in Australia, a decided slump occurred in world market prices. This made successful marketing still more difficult for the Australian growers.

TABLE 42
AUSTRALIAN PRODUCTION OF SULTANA AND LEXIA RAISINS,
1925-1933*

Year harvested	Total*	Sultanas	Lexias
	<i>short tons</i>	<i>short tons</i>	<i>short tons</i>
1925.....	28,587	22,868	5,719
1926.....	25,083	21,711	3,372
1927.....	49,016	43,074	5,942
1928.....	28,791	22,079	6,712
1929.....	59,388	51,520	7,868
1930.....	59,898	53,227	6,671
1931.....	36,761	29,251	7,510
1932.....	45,765	40,822	4,943
1933.....	67,952	59,815	8,137

* As official sources do not report the production of sultana and Lexia raisins separately, the data in this table are taken from unofficial sources; consequently data on total production through 1930 do not agree exactly with those in tables 40 and 41.

Sources of data:

1925-1927: from Commonwealth Dried Fruits Control Board, Seventh Annual Report, page 12.

1928-1932: from Australian Dried Fruits Association.

1933: from Foodstuffs 'Round the World, Canned and Dried Foods 9 (57): 2. 1933.

COMPETITIVE ASPECTS OF THE INDUSTRY

High Costs of Production.—The quality of Australian raisins and currants is at least as good as the product of the other producing sections of the world. The chief obstacle to the Australian industry is the relatively high cost of production. This was probably one of the main reasons why the industry maintained higher prices abroad than those of foreign competitors in the years 1925 to 1928, which resulted in seriously retarding sales and consumption of Australian raisins in the United Kingdom for several years.¹¹³ Although land is cheap, labor is expensive, 60 per cent of the cost of production being represented by wages.¹¹⁴ Moreover,

¹¹³ See Shear, S. W., and R. M. Howe. Factors affecting California raisin sales and prices, 1922-1929. *Hilgardia* 6:87-91. 1931.

¹¹⁴ Detailed information on the cost of producing raisins in Australia will be found in a report of the Australian Development and Migration Commission for 1930, entitled "Dried Fruit Industry." Much information drawn from it will be found in: Squire, E. C. Australian raisin and currant industry and trade. U. S. Dept. Com. Bur. of Foreign and Dom. Com. Trade Inform. Bul. 699. 1930.

practically the whole commercial dried-fruit output has to be grown on irrigated areas for which the Commonwealth must expend enormous sums. Only about 2,240 tons have been produced in Western Australia and South Australia on nonirrigated lands. The great distance from the European consuming centers is also a handicap to the industry because of the resulting high transportation costs.

It is safe to say that the Australian vineyardist cannot cut his production costs enough to offer his fruit profitably at the low prices prevailing in European markets since 1929. Other producing countries of the world offer raisins and currants at prices which never could be remunerative for an Australian grower. Australia, therefore, is almost entirely dependent upon its sales to countries with high purchasing power which grant her special duty preferences, such as the United Kingdom and Canada which take nearly all her exports.

Market Organization.—The Australian dried-fruit industry is well organized and there is scarcely any room for improving the economic status of the producers by further rationalization. The Australian Dried Fruits Association, which regulates marketing to a certain extent, as far as its members are concerned, includes more than 90 per cent of the raisin and currant producers, besides coöperative and privately owned packing sheds, coöperative selling organizations, agents, and wholesale dealers. Since the cost of production cannot be lowered much unless the entire economic system of Australia changes, Australian producers now recognize that there is not much to be done at home to relieve the situation. The industry, therefore, has set about developing several activities abroad, which for the time being are making it possible for producers in that country to continue operating. These activities are discussed in detail on pages 108 and 109.

TRADE POSITION

Australia's endeavor to market abroad much of her enormously increasing production has been rather successful, if one takes into consideration the difficulties that all producing countries have had to face on the international raisin and currant market in disposing of their exportable surpluses in recent years. Table 43 shows the rapid increase that has taken place in Australian raisin exports since the War. It is a bit surprising, too, to see that Australia has continued to import a few raisins from other countries.

Export Outlets.—The most noticeable feature of table 44 is the relative insignificance of Continental Europe, South America, and the Far East as export outlets for Australian raisins; this is also shown in a

striking way in table 46. Certain characteristics of Australian raisins and currants, mainly their sugary flavor, tend to restrict their sale in many European countries that prefer a tart flavor. The South American demand for Australian raisins and currants is relatively small and is limited somewhat by the small quantities produced in Argentina and

TABLE 43
AUSTRALIAN OVERSEAS IMPORTS AND EXPORTS OF RAISINS AND CURRANTS,
1903, 1912-1931

Years beginning July 1	Imports		Exports		Net exports	
	Raisins	Currants	Raisins	Currants	Raisins	Currants
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1903*	1,237	8,641	699	93	-538	-8,548
1912*†	175	248	1,515	384	1,340	136
1913*	130	82	1,918	472	1,788	390
1914	77	30	1,184	930	1,107	900
1915	125	1,219	6,952	1,169	6,827	50
1916	45	2	5,622	6,525	5,577	6,523
1917	165	‡	3,958	4,935	3,793	4,935
1918	29	20	3,111	3,471	3,082	3,451
1919	42	3	8,840	7,948	8,798	7,945
1920	15	4	11,816	5,995	11,801	5,991
1921	219	4	13,206	10,941	12,987	10,937
1922	81	3	19,241	14,503	19,160	14,500
1923	434	4	26,400	16,459	25,966	16,455
1924	193	8	56,047	21,559	55,854	21,551
1925	103	15	35,557	18,845	35,454	18,830
1926	98	5	44,079	19,211	43,981	19,206
1927	108	‡	54,289	8,214	54,181	8,214
1928	331	1	75,207	29,851	74,876	29,850
1929	186	1	79,325	33,302	79,139	33,301
1930	1	‡	89,158	32,214	89,157	32,214
1931	1	1	65,977	30,252	65,976	30,251

* Calendar years.

† The imports of raisins exceeded the exports for all years prior to 1912, except in 1904, 1907, and 1908, which followed abnormally good seasons. The increasing production of currants led to an export surplus of all raisins and currants in 1912.

‡ Less than 500 pounds reported.

Sources of data:

Years previous to 1928 from Off. Yearbook of the Commonwealth of Australia.

1928-1931: from Commonwealth Bureau of Census and Statistics [Australia] Overseas Trade.

Chile. In addition, South American markets are supplied by California and Greece. Furthermore, geographically the Union of South Africa would be in a more favorable position than Australia to develop markets in South America, although up to the present the Union of South Africa has done very little business in the South American dried-fruit trade. These facts partially explain the absence of Continental European and South American countries as important Australian customers.

The Far East, which geographically should be Australia's logical export outlet, does not seem to offer great opportunities in this direction.

TABLE 44
AUSTRALIAN EXPORTS OF RAISINS AND CURRANTS BY COUNTRIES OF DESTINATION, CALENDAR YEAR 1913,
FISCAL YEARS BEGINNING JULY 1, 1922-1931

Destination	1913*	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Currants, in 1,000 pounds											
United States.....	—†	140	140	31	84	165	—	76	0	39	17
Canada.....	142	185	389	96	432	2,157	4,392	5,591	2,251	4,489	4,034
United Kingdom.....	158	11,230	13,964	19,141	17,077	15,121	1,388	22,154	29,492	25,938	22,932
China.....	—	68	42	34	44	71	58	17	4	14	48
Hongkong.....	—	33	49	71	41	54	58	76	72	75	59
Japan.....	—	—	10	8	—	—	—	—	—	—	—
Dutch East Indies.....	—	159	163	161	118	293	176	272	254	275	400
Union of South Africa.....	73	861	772	715	183	427	732	535	640	126	640
New Zealand.....	76	1,721	1,109	942	785	848	1,279	986	782	1,112	1,858
Other countries.....	17	106	114	67	81	75	136	144	192	144	264
Total.....	466	14,503	16,459	21,559	18,845	19,211	8,214	29,851	33,302	32,214	30,252
Sultanas, in 1,000 pounds											
United States.....	—	—	—	27	214	771	2,038	3,516	—	631	160
Canada.....	117	12,717	18,753	43,642	26,689	35,319	43,270	61,776	3,966	17,130	19,046
United Kingdom.....	603	32	8	19	10	23	60	41	65,291	58,309	32,247
China.....	—	—	—	8	17	22	51	12	146	136	71
Hongkong.....	—	5	6	12	17	22	22	73	125	220	369
Dutch East Indies.....	—	56	59	32	60	87	64	110	168	233	229
Union of South Africa.....	97	57	†	—	—	—	—	—	—	—	—
New Zealand.....	500	2,558	1,633	3,132	4,352	2,695	3,525	2,608	2,972	3,807	6,776
Other countries.....	18	56	81	46	69	177	147	191	566	527	372
Total.....	1,335	15,481	20,540	46,910	31,411	39,094	49,155	68,315	73,234	80,993	59,270
Other raisins, \$ in 1,000 pounds											
United States.....	—	—	—	—	—	—	—	—	—	—	—
Canada.....	166	3,201	54	7,873	4,043	870	848	1,316	869	808	1,425
United Kingdom.....	347	—	5,745	—	—	3,921	4,213	5,512	5,102	7,133	4,966
Dutch East Indies.....	—	24	5	12	68	4	4	7	—	—	—
New Zealand.....	42	484	34	1,202	39	39	18	14	33	143	229
Other countries.....	25	50	21	60	52	87	50	43	88	81	86
Total.....	580	3,759	5,859	9,135	4,146	4,985	5,133	6,892	6,092	8,165	6,706

* When comparing the above totals with those in the preceding table on imports and exports, it will be noted that the 1913 figures show a slight difference. That is probably due to later revisions.

† Dashes indicate data not available. If any, they are included under "other countries."

‡ Less than 500 pounds.

§ More than 90 per cent consists of Lexias.

Source of data: Commonwealth Bureau of Census and Statistics [Australia]. Oversea trade.

With the exception of Japan, where only good grades are asked for, the Australian prices are still too high. None of the Far Eastern countries are interested in high-priced dried fruit at the present time. In other words, as far as the Japanese markets are concerned, the better qualities cannot be absorbed at prices remunerative to Australian growers.

The only remaining export outlets for Australian dried fruit are the countries of the British Empire, some of which not only have a relatively

TABLE 45

CANADIAN IMPORTS OF RAISINS FROM AUSTRALIA AND THE UNITED STATES,
1921-1931

Crop year beginning October 1	Total imports	United States	Australia	Percentage from	
				United States	Australia
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>per cent</i>	<i>per cent</i>
1921.....	30,448	27,260	*	89.5	†
1922.....	38,520	36,517	5	94.8	†
1923.....	39,979	37,099	121	92.8	0.3
1924.....	39,930	37,193	99	93.1	0.2
1925.....	34,756	30,426	291	87.5	0.8
1926.....	40,888	37,145	1,707	90.8	4.2
1927.....	45,539	40,469	2,801	88.9	6.2
1928.....	47,020	41,031	4,314	87.3	9.2
1929.....	35,325	27,647	6,461	78.3	18.3
1930.....	40,548	21,965	17,731	54.2	43.7
1931.....	40,324	12,661	26,553	31.4	65.8

* Less than 500 pounds.

† Less than one-tenth of one per cent.

Source of data: Compiled from Quarterly Reports of the Trade of Canada.

high purchasing power, but all of which are in a position to grant duty preferences more favorable than those provided for by most favored nation clauses.

British Tariff Preference.—The rapid development of the Australian raisin and currant industry and trade was made possible largely by the preference granted Australian fruit on the British market. Producers in Australia have recognized for many years that they could not compete on the world market under ordinary circumstances. For that reason, there has been a steady campaign for imperial preference not only on the British market but in the other markets of the British Commonwealth of Nations as well.

As a result of this campaign, duty preferences granted, particularly in the British market and in Canada, have resulted in larger quantities of currants and sultana raisins being shipped to those markets from Australia. Lexias—the Valencia type of unseeded, soda-dipped, sun-

dried Muscat raisin—are losing popularity in the United Kingdom, and expansion of their sale in that market is unlikely. Table 12 shows that Australian currants have practically replaced Greek currants in Canada, and table 45 shows that Australian raisins have been rapidly displacing California seedless raisins in that market in the last three years. It is the general opinion in Australian dried-fruit trade circles that exports of currants to Canada cannot be increased much, but that it will be possible to further displace California raisins in that market if the preferential advantages already granted are continued. On October 1, 1925, the Canadian import duty on raisins, which had previously been $\frac{2}{3}$ cent a pound regardless of country of origin, was raised to 3 cents a pound on California raisins, while Australian raisins were admitted duty free. On June 1, 1931, the general duty which applies to raisins of non-British origin was raised to 4 cents. Possibly in the year 1934, the general duty may be lowered to 3 cents a pound again. All raisins imported from California are subject to this general duty, and in addition, raisins in cartons and in other packages smaller than a 25-pound box are subject to appraisal for dumping purposes at not less than $5\frac{1}{4}$ cents a pound, f.o.b. point of production. In effect this means that Canadian importers cannot buy California raisins in cartons and paper and cellophane bags at less than $5\frac{1}{4}$ cents a pound, f.o.b. California shipping points, regardless of how much lower the prevailing f.o.b. price for domestic sales is. If shipments to Canada are billed at less than $5\frac{1}{4}$ cents f.o.b. California, the Canadian customs authorities collect the difference as a dumping duty.¹¹⁵

THE BEGINNING OF GOVERNMENT AID

The raisin and currant industry of Australia has been the subject of Commonwealth and state aid in some form or other from the very beginning. A survey of these measures indicates that the whole history of government aid to the raisin and currant industry in Australia may be divided into two general phases. The first includes all measures designed to promote the development of the industry, such as irrigation aids, settlement policies, and credit schemes, while the second includes all measures designed to regulate and control production and trade.

Irrigation.—The most important features within the first phase are the irrigation schemes. The first irrigation project along the Murray River in Victoria was started in 1885 by two Americans, the Chaffey brothers, who had gained their experience in fruit growing and irriga-

¹¹⁵ U. S. Dept. Com. Bur. Foreign and Dom. Com. Commerce Reports, p. 8. October 1, 1932.

tion in Riverside, California. This project was taken over by the Victorian government because of a critical financial situation. Rather soon other schemes were taken up and strongly supported by the various state governments. Development of the Australian raisin and currant industry was greatly facilitated by the government's taking care of the expenses for irrigation from the very beginning. A huge scheme, based upon the "River Murray Water Agreement" of 1914 between the Commonwealth government and the states of Victoria, South Australia, and New South Wales, was designed to insure the industry against water shortage. Construction was first started in 1917.

The present annual water rate for the majority of growers is around \$17 an acre.¹¹⁶ This new scheme is supposed ultimately to furnish sufficient water for doubling the total acreage under irrigated production in Australia. Dried-fruit production is centered on the lands along the Murray River and the potentialities of expanding the industry in this favorable region seem to be enormous. It will hardly be possible, however, to develop raisin and currant growing under these costly production conditions in competition with the other producing countries of the world, unless the people of the United Kingdom and the rest of the British Empire are willing permanently to pursue a policy of buying Empire-grown dried fruit exclusively at prices considerably higher than that for which raisins and currants can be produced in important producing countries other than Australia.

Settlement Policy and Loans.—The "Closer Settlement Policy" of the Australian government was of great importance in the development of the raisin and currant industry. The purpose of this policy was to prevent the Australian population from spreading too much throughout the country. The government, therefore, regulated and controlled the purchase and distribution of land. Owing to the fact that the government not only made free grants of land, but also provided for the financial resources of the settlers, the number of raisin and currant producers was easily increased in the Murray River basin where conditions were particularly favorable for expensive vine culture.

As already stated, (pages 102 to 104), the economic equilibrium of the Australian raisin and currant industry was disturbed by the settlement of returned soldiers after the World War. The first difficulty resulting from this policy seems to have made its appearance in 1924, when the Commonwealth government, by means of the Dried Fruit Advance Act,

¹¹⁶ Detailed and comprehensive description of irrigation conditions in the Australian raisin and currant industry will be found in: Squires, E. C. Australian raisin and currant industry and trade. U. S. Dept. Com., Bur. of Foreign and Dom. Com. Trade Inform. Bul. 699. 1930.

provided for exceptional financial assistance to raisin and currant growers. Loans were granted to growers for use solely in farming operations, on dried fruit produced and forwarded to a packing shed, and also to exporters approved by the Ministry of Migration and Markets, at the annual interest rate of 6 per cent. The payment of the sums was taken care of by packing organizations and merchants appointed for this purpose by the government.

THE COMMONWEALTH DRIED FRUIT EXPORT CONTROL BOARD

It so happened that when the newly settled areas came into bearing and production increased so considerably, world market prices dropped. The producer, who did not know where and how to market his share in the oversupply, was in danger of being stampeded into disorderly marketing. Moreover, irresponsible dealers began to trade on any basis because of their necessity for immediate cash returns. As there was still a considerable unexportable and permanent surplus on the home market, amounting after home consumption was deducted to about 15 to 20 million pounds, the Commonwealth government deemed it advisable to establish some sort of control over marketing. As the bulk of the crop is exported, an export control régime was set up in 1924, which is still functioning at the present time. The complete details of this export control measure are discussed in subsequent paragraphs.

Commonwealth and State Interests Not Identical.—Although the Commonwealth Customs Tariff Act of 1901 made Australia an economic unit in its trade relations with foreign countries, the Commonwealth government itself (according to the Federal Constitution) can interfere in the trade of the various Australian states only within certain limits. It is obvious, of course, that any export control measure adopted by the Commonwealth government affects the trade organizations of all the various states. When the Commonwealth government was empowered by the Dried Fruit Export Control Act of October 20, 1924, to establish the Commonwealth Dried Fruit Export Control Board,¹¹⁷ the various state governments had to form similar boards in order to make the functioning of the Commonwealth Board as efficient as possible. Hence the multiplicity of dried-fruit boards in Australia.

These state boards are linked with the Commonwealth Board and with one another in that they are supposed to make all of their decisions on behalf of the dried-fruit industry as a whole, so that the action of one

¹¹⁷ The activities of the Board are controlled by the Federal Department of Markets on the basis of the following acts: Dried Fruit Exports Act of 1924; Dried Fruit Export Charges Act 1924-1927; Dried Fruit Interstate Trade Act 1928; and the Dried Fruit Export Guaranty Act 1924-1925.

state board will not nullify the action of another or of the Commonwealth Board. The latter has no authority over the state boards and cannot tell them how to arrange matters. The uniformity in the legislative foundation of the boards, however, makes it possible to obtain at least some sort of uniformity in policy and actions for the dried-fruit industry as a whole.

The export control exercised by the Commonwealth Board is based on the retention principle. In other words, the Commonwealth Board determines the percentages of the output which can be exported or must be kept within the Commonwealth either for ordinary consumption or for industrial use (delivery to distilleries), in accordance with the price, the world market situation, and the actual exportable surplus available in Australia. The general policy is to make prices remunerative for the grower by preventing disorderly marketing and glutting of the market. Each producer of Australian dried fruits is expected, as far as practicable, to share proportionately in the home and the export trade.

The various state boards, however, have the same right as the Commonwealth Board, and they fix the percentage with regard to the apparent immediate needs of their particular state. They also recommend to the Commonwealth Board the export quotas to be employed. For that reason, there are frequent clashes of opinion between the Commonwealth Board and the various state boards. One state board, for example, may feel that in seasons when production of raisins and currants in its state is relatively small, growers within its jurisdiction could well afford not to export at all and that it would be more remunerative to sell the entire output within the sheltered Australian home market. Production in New South Wales averages around 1,600 tons annually, while the population consumes from 4,000 to 6,000 tons. The home market is, therefore, considered to be the better market. Accordingly, the state board invariably fixes export and home retention quotas that disagree with the quotas of the Commonwealth Board, which are fixed with a view to making all Australian growers share proportionately in the home and the export trade. Disputes in such matters have repeatedly taken place.

Thus, the efforts to effect stability of price in one state may be nullified by the action of producers in the adjoining state. It will be seen later how this is avoided (page 120). In general, it has been a difficult matter to bring about concerted action among these various boards. Serious thought is now being given to the possibility of effecting a change in the Commonwealth Constitution so as to remove the limitation of the inter-

ference by the Commonwealth government with the trade regulations of the various state governments.

Organization of the Commonwealth Export Control Board.—The Commonwealth Dried Fruit Export Control Board was brought into existence by the law of October 20, 1924, as a semiofficial organ. It constitutes a "body corporate" with perpetual succession and is capable of suing and being sued. The law establishes the relation between Board and growers as follows: "The Board in its corporate capacity shall be deemed to be the agent of the owners of all dried fruits of which the Board has accepted control. The mutual rights, obligations, and liabilities of the Board and the several owners shall, accordingly, be determined in accordance with the law governing the relations between principals and agents."¹¹⁸

The membership of this Board consists of four representatives elected by the growers in each of the four producing states; two members representing the dried-fruit trade, appointed by the Governor General; and one representative of the Commonwealth government. The Board is financed by a Dried Fruit Export Fund, which is established by sums derived from a special export tax imposed on all dried fruit exported. The income derived from the investment of these sums forms a part of the fund. The accounts of the Board are inspected by the Auditor General of the Commonwealth. In order to facilitate the activity of the Board, the law prescribes that traders in dried fruit have to apply for a special license in order to operate. The Board keeps a register of these licenses. It also can call upon any person to furnish such information in relation to the industry as is deemed necessary for the purpose of carrying out its activities. Persons who fail to report to the Board when called upon are liable to penalties.

Functions of the Board.—The main function of the Commonwealth Board is to stabilize the dried-fruit industry by preventing demoralization of the market, mainly by the establishment of remunerative prices. Knowing from the above compulsory reports the economic situation of the industry at home, and knowing what the foreign situation is through its agency in London and a special commercial representative in Canada, the Board decides which quantities can be exported and what minimum prices have to be accepted by the exporter. The Board is, of course, authorized to change these quotas and prices from time to time.

Marketing Under the Commonwealth Control Plan.—At the same time the Governor General prohibits the exportation of any dried fruit

¹¹⁸ There has actually been a case (the James case) which shows that an exporter can claim indemnities for damages to his trade brought about by the activity of the Board.

unless the Board has granted an export license and the exporter has obtained a certificate of cleanliness and quality based on government inspection. The granting of this license affects, of course, the trade technique to a certain extent. The Australian exporter places his samples before his overseas customer by means of London agents and makes a contract with him. The sale of Australian dried fruit in Great Britain is based on a sample of the actual outturn and not upon standards adopted for the internal trade of Australia or for other markets.

Active salesmanship of the several approved agents receiving fruit in Great Britain on consignment¹¹⁹ and on behalf of their Australian principals is not prevented by the Commonwealth Export Control Board. The agent can sell as much as he is capable of placing. The contract, however, must be submitted for examination to the London Agency of the Board.

The conditions under which a license or export permit (in case of consignments, a sales permit) is issued are the following: In case of shipment to Great Britain the exporter cannot complete the sale until the contracts have been approved by the London Agency; the application for a license must contain all of the particulars as to gross and net price c.i.f. (cost, insurance, and freight) and f.o.b., discount, commission, rebates, or any other allowances.

The conditions for a shipping license to New Zealand and other countries are similar. In the case of New Zealand, it is additionally required that the fruit be sold to such purchasers, through such agents, and in such quantities, as the Board may determine. In the case of other countries, the exporter must prove that the fruit has actually been sold for consumption outside of Australia at a price approved by the Board, and that the purchaser will not transship or reexport the dried fruit to Great Britain.

It can be concluded from the foregoing that the Board actually can exercise a very strong measure of control. Even if the retention system of fixing export quotas does not work satisfactorily, there is still an opportunity for eliminating certain quantities from the market, at least temporarily, by sales-contract cancellations based on disapproval of the prices agreed upon by the parties concerned. Prices in all cases are supposed to be remunerative to the grower after deduction of production costs and handling expenses. This price-controlling device prevents Australian exporters from underselling one another and induces them to endeavor to obtain prices as high as possible because of the ever-

¹¹⁹ Most of the Australian fruit is sent on consignment.

present risk of cancellation of the contract by the Board and subsequent delay and annoyance when agreeing upon a new contract.

Objections to the Present Control System.—The Australian system shows its weak point in free competition. It is the general opinion that control by means of combining retention and price-fixing on a sliding-scale basis according to the world market conditions, has kept the Australian dried-fruit industry fairly well organized. But what is going to happen when other producing countries undersell Australia? In that case neither the creation of an artificial shortage nor the disapproval of low contract prices by the Board can be of any material aid.¹²⁰

The Board bases its approval or disapproval of prices demanded by Australian growers largely on the prices quoted by competitors. Owing to the competitive struggle and the crop situation in the various producing countries these prices fluctuate. The Australian stabilization system, therefore, cannot guarantee an equalization of annual returns and consequently no real stability to the industry. This is the main argument against the system that has been in effect in Australia since 1924.

Another objection is that this marketing system has brought about too much centralization. It is claimed that sales in the large industrial centers in England cannot be handled successfully because there is only one agency for the British market, i.e., the one in London. The obligation of submitting all transactions for the approval of the Board is also said to have caused buyers to purchase dried fruit from other countries rather than submit to the Australian methods.

ORGANIZATION OF THE STATE BOARDS

As already indicated, the formation of state boards was made necessary by constitutional limitations prohibiting the interference of the Commonwealth government in the trade activities of the separate states. Although it has been difficult at times to bring about concerted action among the various boards and the Commonwealth Board, the activity of the latter in the foreign market has been supported by the rationalizing activity of the state boards in the home market. The exact manner in which the state boards have coöperated with the Commonwealth Board will be discussed below (pages 115 to 120).

Victoria.—The control board for the State of Victoria was established by the Victoria Dried Fruits Act of December 30, 1924. The board consists of two members appointed by the State Minister of Agriculture and

¹²⁰ For a brief discussion of some of the difficulties of the Australian Dried Fruit Control Board involved in price-fixing from 1925 to 1930 see Shear, S. W., and R. M. Howe. Factors affecting California raisin sales and prices, 1922-1929. *Hilgardia* 6:87-89. 1931.

three members elected by the growers. It is financed by a levy on the growers for each pound of dried fruit produced. The board inspects the packing sheds, which have to be registered annually, and issues certificates of the quality of dried fruits intended for sale, which must correspond to the quality standards fixed by the board. It can refuse the registration of new packing sheds, if in the opinion of the state Governor there are sufficient sheds in the state. The board also prescribes branding or labeling of coverings and containers; i.e., the indication of grade description or marks to be used.

The marketing control exercised by the Victoria state board consists of fixing the percentages of the total output to be exported or marketed within the country. As previously stated (page 111), there must be an agreement with the Commonwealth Board regarding these quotas. The law, therefore, empowers the Premier of Victoria to join the Premiers of the Commonwealth and the states in any arrangements for concerted action in marketing problems.

If, for example, the investigation of the Commonwealth Board shows that (on account of adverse market conditions abroad) only a certain percentage of the crop in the State of Victoria can be exported (in order that the main purpose of the entire control scheme may be realized), and if, as a result of these circumstances there should remain an unconsumable surplus in Australia, then the State Minister of Agriculture is authorized to expropriate, or purchase, any dried fruits grown or dried in Victoria. One can see that this possibility of intervention purchases by the state constitutes the support given to the policy of the Commonwealth Board so far as the export quota is concerned. On the other hand, it is also a relief measure to protect the grower. In addition the board is empowered to handle such quantities as have not been acquired by the Minister.

In order that the government may always have expert knowledge of the position of the market, growers are compelled to make returns on the quantities held. The State Minister of Agriculture also requires that he be kept informed by telegram or letter concerning the quantities to be delivered to him or to the board. Unlike the Commonwealth Board, the state board is not liable for the result of its actions. No claim or demand can be made against it. The state board may also undertake advertising campaigns in Victoria.

South Australia.—The legislation providing for a state control board in South Australia was enacted on December 24, 1924, with the reservation, however, that it would not be enforced unless the State of Victoria enacted a law substantially similar to it. The organization of the South

Australian board corresponds to that of the Victorian, i.e., three grower members and two government officials, and financed by levy on growers per pound produced. The control is exercised in the same manner as in Victoria. Growers, packers, and dealers must register and are obliged under penalty to furnish any requested particulars about their business activities. The fixing of the export quota is supposed to be in agreement with that suggested by the Commonwealth Board.

As in Victoria, the State Minister of Agriculture may purchase or acquire any dried fruit or may authorize the board to do so. In several respects, however, the power of the South Australian board is greater than that of Victoria. The South Australian board, for example, may open wholesale or retail shops or depots for the sale of the quantities expropriated by it. It can fix the minimum remuneration to be paid to dealers for the sale or the distribution of dried fruit and the maximum prices to be charged for wholesale and retail sales. In addition the South Australian board is charged with the task of advertising and of promoting the sale and consumption of dried fruit in South Australia.

Western Australia.—In Western Australia a board, subject to control by the State Minister of Agriculture, was not formed until December 24, 1926. As in the case of the two states already mentioned, this board consists of three growers and two government representatives. It is financed by a levy on growers and it exercises control in exactly the same way as the South Australian board. It also fixes the remuneration to be paid to dealers for the sale of the fruit. Unlike the South Australian, but like the Victorian board, it can issue regulations for standards of quality and for branding and labeling. There are also provisions for an advertising campaign.

New South Wales.—The state of New South Wales can easily sell all of its small production of raisins and currants within its own boundaries on account of its large population (page 112), which represents somewhat more than one-third of the total for all Australia. For that reason growers have little or no interest in compulsory exports. It was not until February 17, 1927, that an agreement was arrived at whereby a quota might be fixed for New South Wales providing such action meets with the approval of 70 per cent of the state growers. The control board in New South Wales has only three members as against five for the boards in other states. One of the members on this New South Wales board is a government official, one a representative of growers operating in certain irrigation districts, and one a representative of the rest of New South Wales growers. The organization, control functions, and liability of the board correspond with those of the other state boards. In the case of New

TABLE 46

RAISIN IMPORTS INTO PRINCIPAL IMPORTING COUNTRIES BY COUNTRY FROM WHICH IMPORTED, CALENDAR YEAR AVERAGES, 1909-1913, 1921-1925, AND 1926-1930

Importing country and years	Country from which imported							
	Total	United States	Australia	Turkey	Spain	Greece*	Union of South Africa	Other countries†
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
United Kingdom‡:								
1909-1913.....	80,733	964	568	41,537	28,797	4,282*	§	4,585
1921-1925.....	119,261	25,564	23,926	29,329	18,784	9,525*	6,119	6,014
1926-1930.....	159,887	52,297	54,734	23,208	15,732	7,789*	3,329	2,798
Germany:								
1909-1913.....	39,990	376	§	33,761	1,175	1,662	§	3,016
1921-1925.....	27,009	2,351	§	18,204	574	4,419	§	1,461
1926-1930.....	69,909	16,937	§	36,823	265	12,216	§	3,668
Canada:								
1909-1913.....	22,331	12,068	§	1,782	7,719	§	§	762
1921-1925.....	34,537	31,773	60	959	1,312	§	81¶	†
1926-1930.....	40,662	34,371	4,285	516	751	§	211	528
France:								
1909-1913.....	17,540	§	§	7,025	4,839	4,880	§	796
1921-1925.....	9,575	241**	§	1,112	4,183	3,675	§	†
1926-1930.....	12,795	3,085	§	869	3,976	1,992	§	2,873
Netherlands:								
1909-1913.....	10,931	10	§	9,354	532	92	§	943
1921-1925.....	13,792	2,693	§	5,522	740**	2,276	§	†
1926-1930.....	23,184	10,602	§	9,012	457	1,293	§	1,820
Belgium:								
1909-1913.....	5,133	28¶	§	2,994	476	101	§	†
1921-1925.....	7,090	667	§	2,580	475	297	§	†
1926-1930.....	11,246	3,680	§	2,767	698	425¶	§	†
New Zealand:								
1909-1913.....	4,681	2,408	328	255	43	316	§	1,331
1921-1925.....	6,751	3,525	2,550	574†	34	39	§	29
1926-1930.....	9,016	5,576	3,246	129	62	1	§	2
Denmark:								
1909-1913.....	4,229	208	§	§	2,883	§	§	1,138
1921-1925.....	3,960	1,655	§	§	1,481	§	§	824
1926-1930.....	5,674	4,440	§	§	533	§	§	701
United States:								
1909-1913††.....	3,582	§	0	1,445	1,781	21	0	335
1921-1925.....	11,887	§	24	2,783	3,559	2,487	1,597	1,437
1926-1930.....	2,688	§	††	572	1,259	216	358	283
Sweden:								
1909-1913.....	3,623	98¶	1**	140	2,954	98	§	†
1921-1925.....	3,077	586	§	123	1,828	82	§	458
1926-1930.....	4,714	2,958	§	53	1,205	19	§	479

TABLE 46—(Concluded)

Importing country and years	Country from which imported							
	Total	United States	Australia	Turkey	Spain	Greece*	Union of South Africa	Other countries†
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Norway:								
1909-1913.....	3,114	20¶	\$	500	1,498	165	\$	†
1921-1925.....	3,393	818	\$	334	717	555	\$	†
1926-1930.....	4,247	2,369	\$	194	908	140	\$	†
Italy:								
1909-1913.....	2,773	1	\$	1,380	574	331	\$	487
1921-1925.....	2,298	22¶	\$	975¶	237¶	1,763¶	\$	†
1926-1930.....	5,272	316¶	\$	1,406¶	1,172¶	2,285¶	\$	†
Switzerland:								
1909-1913.....	2,076	2	\$	419	1,148	485	\$	22
1921-1925.....	1,751	46	\$	233	568	871	\$	33
1926-1930.....	2,641	682	\$	538	471	947	\$	3
Poland:								
1909-1913§§	§§	§§	§§	§§	§§	§§	§§	§§
1924-1925**	5,755	\$	\$	558	\$	0	\$	5,197
1926-1930.....	2,114	362¶	\$	463	\$	182	\$	†
Irish Free State:‡								
1924-1925**	4,648	\$	\$	\$	399	\$	\$	4,249
1926-1930.....	6,011	\$	\$	\$	516	\$	\$	†
Egypt:								
1909-1913§§	§§	§§	§§	§§	§§	§§	§§	§§
1921-1925.....	4,144	\$	\$	519	\$	1,950	\$	1,675
1926-1930.....	3,851	\$	\$	1,105	\$	870	\$	1,876
China:								
1909-1913§§	§§	§§	§§	§§	§§	§§	§§	§§
1923-1925	4,843	3,798	47	\$	\$	\$	\$	998
1926-1930.....	6,073	4,823	62	\$	\$	\$	\$	1,188
Czechoslovakia:								
1909-1913§§	§§	§§	§§	§§	§§	§§	§§	§§
1921-1925.....	3,734	5	\$	250	\$	228	\$	3,251
1926-1930.....	6,434	316	\$	1,480	\$	2,491	\$	2,147

* For the United Kingdom, imports from Crete are excluded for 1909-1913 and included for 1921-1925 and 1926-1930. It is probable that the same is true of imports from Greece for other importing countries, since Crete did not come under Greek rule until 1912.

† Data on imports from "other countries" have been computed by subtracting the sum of imports given for specified countries from total exports. In all cases where irregular averages are given for one or more countries of origin, imports from "other countries" cannot be computed accurately and hence are omitted.

‡ The Irish Free State is included with the United Kingdom previous to April 1, 1923.

§ If any, included in "other countries."

†† Year beginning July 1.

|| Four-year average.

‡‡ Less than 500 pounds.

¶ Three-year average.

§§ Data not available.

** Two-year average.

|||| Includes currants.

Sources of data:

Compiled from official sources by the Foreign Agricultural Service of the U. S. Department of Agriculture. Data for 1930 in some instances may be preliminary and therefore the 1926-1930 averages may be subject to minor changes.

South Wales there are, of course, no legislative provisions for an advertising campaign. Nevertheless, publicity is obtained by propaganda under the auspices of the board in schools, etc.

Concerted Action of the State Boards.—While South Australia and Western Australia exercise a sort of indirect price policy on the home market by fixing the remuneration to be received by dealers for the sale of raisins and currants, a uniform price policy prevails in all four states as far as the unexportable and unconsumable surplus is concerned. Such surpluses, as has already been mentioned, are bought by the boards or by the State Ministers of Agriculture. Growers are paid an "export parity price" for these quantities. This price is equal to either the assumed or the actual selling price of Australian raisins and currants in London, less the cost of freight, insurance, exchange, duties, and other charges.

Mention has been made of the fact (page 112) that a state, when fixing an export quota lower than those of the adjoining states, could exploit the home market in the other states by shipping its surplus into them, obtain a good profit, and save the trouble connected with marketing in Great Britain. The state boards try to avoid this practice by fixing the shipment quotas of each state for interstate trade, which they determine after having consulted each other. Victoria, for example, when allowed by the Commonwealth Board to export abroad 80 per cent of its output, cannot sell the remaining 20 per cent in New South Wales in competition with growers there. But because of its greater population and the surplus available in other states, the New South Wales government may allow 5 per cent of the Victorian crop to be marketed in New South Wales.

New South Wales has always allowed a certain percentage of raisins and currants from other states to be marketed within its boundaries but it has no local state surplus for which it can exercise a state price policy as do the other state boards. The New South Wales theoretical surplus consists only of that part of the output which, in accordance with the ruling of the Commonwealth Board, is not to leave the country, but which must be sold within the state itself. Complaints are often made that the raisins shipped into New South Wales from other states are being offered at cut prices and that they are depressing the prices of the New South Wales crop. Because of this situation there has always been considerable difficulty between the Commonwealth Board and the state boards, on the one hand, and the New South Wales board, on the other, in agreeing upon export quotas.

OTHER FORMS OF GOVERNMENT AID

The Commonwealth Board is aiding the Australian dried-fruit industry in a direct way by undertaking the insurance against loss of all dried fruit until it is disposed of either in the Commonwealth or abroad. It may also supervise and regulate the conditions under which the fruit is handled, stored, and shipped. The Board effected for the grower, during the first three years of its activities, a total saving in freight and insurance of about \$194,600. In a shipping conference in 1929, between overseas shipping interests and Australian dried-fruit traders, it again used its influence to secure the lowest possible rates. In 1930 the Board made a trial shipment of raisins and currants to London in order to test the practicability of water-tight containers made from wood pulp. The fruit was first sterilized in hydro-vacuum kilns and then placed in these containers, which are said to be insect and fungi proof and considerably cheaper than tin containers. These activities serve to indicate the various directions in which the Commonwealth Board is attempting to aid the industry.

The Australian raisin and currant industry has shown an amazing development notwithstanding the difficulties growing out of the world-market situation since the War. The government of Australia has made every effort to support the industry and has also tried to stabilize it by attempting to check too rapid expansion. The state governments have definitely discouraged further plantings by not subsidizing new enterprises. A coöperative packing and selling organization proposed by the Development and Migration Commission some years ago, which was to undertake the handling of the entire Australian pack between grower and merchant has not been established. It seems as if the Australian Dried Fruits Association does the service of this proposed pool.

Publicity Activity.—In general, it has been recognized that the exportable-surplus question in Australia could be solved if the Australian people would eat more raisins and currants. The home propaganda for increasing consumption is very active. The state governments foster it strongly. The state railroads participate in advertising campaigns by distributing recipe books, by displaying giant posters at the stations, and by selling dried fruit in the official railroad fruit stalls and refreshment rooms.

The major portion of the income derived by the Commonwealth Board from the levy on exports is spent for publicity campaigns overseas. The Commonwealth government carries on a publicity scheme in Great

Britain which covers dried fruit, fresh and canned fruits, honey, and dairy produce. The government contributes to the maintenance of this campaign to the extent of about \$243,000 annually. The Australian dried-fruit industry has spent the following sums in these advertising campaigns: 1926, \$17,000; 1927, \$97,300; 1928, \$121,650; 1929, \$97,300.

The British Empire Marketing Board.—The efforts of the Commonwealth government are supported by the British Empire government

TABLE 47

UNITED KINGDOM IMPORTS OF RAISINS FROM SPECIFIED COUNTRIES, AVERAGE 1909–1913, ANNUAL 1921–1932

Calendar year	Australia	United States	Turkey	Spain	Greece and Crete	Union of South Africa	Other countries	Total
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
Average: 1909-1913	568	964	41,537	28,797	4,282*	†	4,585	80,733
Annual:								
1921.....	6,966	4,138	32,465	16,854	6,485	5,694	8,950	81,552
1922.....	10,086	40,167	25,719	21,807	10,009	10,536	12,752	131,076
1923.....	20,961	22,310	46,053	16,350	9,791	4,922	6,123	126,519
1924.....	42,183	20,105	29,905	18,848	13,012	5,369	1,466	130,888
1925.....	39,436	41,092	12,502	20,062	8,327	4,087	766	126,272
1926.....	24,466	44,964	31,035	16,867	8,910	3,585	337	130,164
1927.....	63,285	59,505	24,239	19,938	4,402	3,238	3,724	178,331
1928.....	32,012	77,434	19,392	13,046	7,762	5,066	1,415	156,127
1929.....	80,619	43,825	25,254	13,765	9,378	2,477	4,161	179,478
1930.....	73,282	35,322	15,805	13,995	8,319	2,280	4,730	153,733
1931.....	41,990	51,056	11,829	14,137	7,044	6,104	6,899	139,059
1932.....	33,767	50,818	45,284	14,667	14,687	6,447	22,288	187,958

* Excluding Crete.

† A very few included in "other countries."

Sources of data:

Compiled from Monthly Accounts Relating to the Trade and Navigation of the United Kingdom, December Issues and Annual Statement of the Trade of the United Kingdom.

which, in May, 1926, set up a marketing institution, known as the British Empire Marketing Board, to promote the sale and consumption of Empire merchandise. Endowed with funds ranging from \$2,000,000 to \$3,000,000 annually, this Board furthers the marketing of Empire products in the United Kingdom and establishes a means whereby the various dominions and colonies can coöperate more directly in the interest of their specific products. By direct propaganda (newspaper advertisements and articles, posters, distribution of postal cards, recipe books for cooking with Empire goods, fruit calendars, exhibitions, lectures, radio talks, and movies), the Board advocates the consumption of Empire-grown commodities. Following the slogan of "Empire Con-

sciousness," some of the largest biscuit and cake manufacturers have undertaken to use Australian dried fruit exclusively in their products. The combined effect of preferential import tariffs and favorable money exchange rates and the efforts of the British Empire Marketing Board and of the Australian government to promote the sale of Australian fruit is shown best by the increasing imports of Australian raisins into the United Kingdom and Canada (tables 45, 46, and 48).

In 1927, the Board invited an expert representative of the Australian dried-fruit industry to visit London for the purpose of studying the requirements of the British market. The report of this expert, who was also a producer-elected member of the Commonwealth Dried Fruit Export Control Board as well as the Chairman of the Australian Dried Fruits Association (comprising 90 per cent of the producers), has been published by the British Empire Marketing Board.¹²¹ This expert also proceeded to California where he made a survey of American conditions at first hand.

In addition, the British Empire Marketing Board carries on economic investigations of wholesale and retail market conditions affecting the sale of Australian and other Empire dried fruits. Upon the condition that the Australian Commonwealth government would contribute a certain sum, the British Empire Marketing Board has made a grant of about \$24,300 for research on insects in dried fruit. Another grant, under the same condition, amounting to about \$121,650 has been made for the establishment of an organization to pursue entomological investigations in Australia. A third grant, amounting to about \$43,794, provided for the sending of a mission to Australia to investigate various matters affecting the development of trade between Great Britain and the Commonwealth. It is to be supposed that the raisin and currant industry has also been taken into consideration by this mission. There is, finally, within the British Empire Marketing Board a special sub-committee for dried-fruit questions.

¹²¹ Howie, H. D. Report on marketing of Australian dried fruits. London. [Great Britain] Empire Marketing Board. Special Report No. 2:1-33. 1928.

RAISIN AND CURRANT INDUSTRY OF THE UNION OF SOUTH AFRICA¹²²

In pre-war times the Union of South Africa was a raisin and currant-importing country. Since 1917, however, there has been an annual export surplus. This has fluctuated rather violently, and at times, especially in the beginning of the last decade, was eight to ten times in excess of imports. The imports show a remarkable stability, remaining around 1 million pounds annually. In general, however, the Union of South Africa must now be considered as a competitor on the world raisin market.

PRODUCTION TREND

Practically all of the raisins produced in South Africa are grown in the southwestern part of the Cape of Good Hope Province. Both Muscat and sultana raisins are produced,¹²³ but Muscats are still in the majority in both production and exports (tables 48 and 49). The Muscat of Alexandria, known locally as the "White Hanepoot," is used more for loose or stemmed raisins although some are dried as clusters (table 48). The small production of currants is mostly of the Greek Zante variety.¹²⁴ In addition to these eating varieties, Hermitage (Cinsaut) and other wine-making varieties are grown, although on a considerably smaller scale, and a small portion of the crop has been dried in some years since the War.

Unsatisfactory climatic conditions resulted in a larger portion of the

¹²² General sources used for this section in addition to those given in specific footnotes:

Cross, C. M. P. Dried-fruit industry and trade of South Africa. U. S. Dept. Com. Bur. of Foreign and Dom. Com. Trade Inform. Bul. 676:1-11. 1930.

Davis, R. A. Fruit growing in South Africa. 532 p. Central News Agency, Ltd., Johannesburg. 1928.

[Union of South Africa] Government Gazette, published weekly. Pretoria.

[Union of South Africa] Committee on fruit export trade. Report of committee of inquiry upon certain matters in connection with the fruit export trade of South Africa. 14 p. Cape Town. 1925.

Union of South Africa. Department of Agriculture. Dried fruits. Bul. 67:1-7. Pretoria. 1929.

Union of South Africa. Department of Agriculture. Handbook for farmers in South Africa. 766 p. Pretoria. 1929.

Union of South Africa. Office of Census and Statistics. Official Yearbook of the Union of South Africa. Pretoria.

[Union of South Africa] Railways and Harbors Board. Farming opportunities in the Union of South Africa. 1926.

¹²³ Wheeler, L. A. International trade in dried fruits. U. S. Dept. Com. Bur. Foreign and Dom. Com. Trade Promotion Series No. 44:30. 1927.

¹²⁴ "The real Zante currant grape was not imported into the Union until 1916, but it is now being grown fairly extensively, especially in the southwestern districts of the Cape." (From: Official Yearbook of the Union of South Africa, p. 427.) The Cape currant, a kind of dwarf seedless Muscat possessing a pleasing flavor, is cultivated on a very small noncommercial scale.

1929 raisin-grape crop being diverted into wine-making than usual. To some extent this glutted the wineries, and wine makers complained of overproduction.¹²⁵ The raisin grape is suited only for the cheaper grades of wine; this makes it difficult to sell South African wine competitively

TABLE 48

RAISIN AND CURRANT PRODUCTION* AND EXPORTS OF THE UNION OF SOUTH AFRICA,
1904, 1911, 1918-1933

Year harvested	Production					Exports†	
	Muscats		Sultanas	Raisins, total	Currants	Raisins	Currants
	Clusters	Loose					
	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
1904‡.....	61	1,727	43	1,831	8	—§	—
1911.....	125	2,231	158	2,514	11	—	—
1918.....	496	4,716	1,149	6,361	114	3,215	1
1919.....	270	3,824	821	4,915	68	4,005	3
1920.....	412	3,907	853	5,172	68	3,031	5
1921.....	1,107	5,452	1,835	8,394	78	6,984	5
1922.....	3,028	10,114	2,499	15,641	119	11,873	1
1923.....	2,215	5,892	3,714	11,821	179	5,337	3
1924.....	2,913	6,239	1,894	11,046	214	7,900	5
1925.....	2,542	4,613	2,164	9,319	200	4,854	1
1926.....	2,060	3,949	3,120	9,129	182	4,953	2
1927 	3,446	3,330	3,515	10,291	218	3,406	—
1928 	3,561	3,223	4,044	10,828	192	5,006	1
1929 	3,178	3,381	3,369	9,928	431	2,788	4
1930 	552	5,452	3,000	9,004	616	2,369	1
1931.....	—	5,400¶	3,900	9,300	450	6,292	1
1932.....	—	5,100¶	4,200	9,300	450	6,458	**
1933.....	—	6,100¶	4,200	10,300	450	7,400	1

* Data include raisins dried on farms only and exclude the small quantities dried in factories.

† Export data are for calendar years.

‡ Data for 1904 are for the Cape Province only.

§ Dashes indicate data not available.

|| Denotes fruit sold (farms only).

¶ Data given for 1931-1933 include both loose and cluster Muscats and may include small quantities of dried wine grapes in addition.

** Less than 500 pounds.

Sources of data:

Production data 1904-1930: from Off. Yearbooks of the Union of South Africa.

Production data 1931-1933 and export data for all years from: C. C. Taylor, U. S. Agricultural Attaché, Pretoria, in: Federal-State Market News Service, South African Dried Fruit Reports for February, 1933, pp. 2-3; for January, 1933, p. 4; and for June, 1933, p. 1. (Mimeo.) Sacramento, California.

in Europe after transportation charges are paid. The wine producers have attempted to protect the wine market by paying a bounty to raisin producers, amounting to about 2 cents for every pound of raisins dried, and this withholds fresh raisin grapes from being worked into wine. It is claimed that this bounty has tended to maintain the production of

¹²⁵ Reports from U. S. Consul Cecil M. P. Cross.

raisins at the level of previous years. It was still in effect in 1931.¹²⁶ The production of dried wine grapes for wine production exclusively seems to have had some importance in former years, but it is of relatively little importance at the present time.

TABLE 49

OVERSEAS EXPORTS OF MUSCAT AND SULTANA RAISINS FROM THE
UNION OF SOUTH AFRICA, 1927-1933

Calendar year	Muscat*	Sultana	Total
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1927.....	1,981	1,425	3,406
1928.....	2,245	2,762	5,007
1929.....	1,556	1,232	2,788
1930.....	1,013	1,356	2,369
1931.....	3,735	2,557	6,292
1932.....	3,556	2,902	6,458
1933†.....	3,000	4,400	7,400

* Designated as raisins in source from which copied but are presumably all Muscats except for a few dried wine grapes.

† Estimated.

Sources of data:

1927-1931: are from Off. Yearbooks of the Union of South Africa and are estimates of the Department of Agriculture of the Union.

1932 and 1933: are from C. C. Taylor, U. S. Agricultural Attaché, Pretoria. See: Federal-State Market News Service. Dried Fruit Report (for South Africa), for January, 1933, p. 4; and for June, 1933, p. 1. (Mimeo.) Sacramento, California.

EXPORT OUTLETS

Table 48 shows that the raisin export trade of the Union of South Africa was of no importance before the War. However, it received considerable stimulus during the War when the Mediterranean countries found it exceedingly difficult to get their raisins and currants to European markets. Most of the big increase in raisin exports has gone to the United Kingdom, which still remains by far the most important customer, although, since 1923, Canada has become of some importance as an outlet because South African raisins have been admitted duty free (see table 50). At the peak of the Union's total annual raisin-export business, 1922, shipments to the British market had increased to the point of constituting 8 per cent of total imports of raisins into the United Kingdom, as compared with 3.5 per cent in 1919. The average of the five years 1928-1932 was 3 per cent. The lowest figure since 1922 was 1.5 per cent in 1930 and the highest 4.4 per cent in 1931.

In spite of the tariff preference and propaganda favorable to raisins produced in the British Empire, United Kingdom imports from South

¹²⁶ According to a cable of March 13, 1931, from C. C. Taylor, U. S. Agricultural Attaché, Pretoria, Union of South Africa.

Africa have declined greatly since they reached the peak of 12,534,000 pounds for the year 1922. Australia has been able to appropriate most of this advantage for her raisins. The Union's exports to England have constituted such a large majority of its total exports that naturally the total has declined just about as much as its exports to the United Kingdom. As table 51 shows, the only countries to which raisin exports from

TABLE 50

EXPORTS* OF RAISINS AND CURRANTS FROM THE UNION OF SOUTH AFRICA, BY COUNTRIES OF DESTINATION, CALENDAR YEARS, AVERAGES 1909-1913, 1922-1926, ANNUAL 1927-1932

Country	Average† 1909-1913	Average 1922-1926	1927	1928	1929	1930‡	1931‡	1932‡
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
United Kingdom.....	2	5,624	3,454	5,259	2,472	2,285	6,081	6,422
Germany.....	—	245	2	6	8	0	24	—
Netherlands.....	—	93	—	1	0	0	12	—
Canada.....	—	10	102	415	235	54	161	56
United States.....	—	569	—	7	0	0	—	—
African countries.....	8	24	54	63	62	74	107	37
Other countries.....	9	20	1	1	0	0	20	14
Total raisins.....	19†	6,585	3,613	5,752	2,777	2,413‡§	6,405§	6,529‡§
Total currants.....	0	2	10	6	12	—†	—†	—†

* Does not include exports to Southwest Africa or Rhodesia, but includes overland exports to other countries. It will be noted that the total exports of raisins reported by the Department of Customs and Excise as given in this table do not agree exactly with those reported by the Department of Agriculture, table 48. The Annual Customs Reports include overland exports; the data of the Department of Agriculture do not include overland shipments to Belgian Congo and the Portuguese colonies. The Customs Reports cut off December 31 as with documents executed and not with ships sailed that day, in contrast with practices of the Department of Agriculture. See: Federal-State Market News Service, Dried Fruit Report for South Africa for January, 1933, p. 5. February 23, 1933. (Mimeo.) Sacramento, California.

† Includes figs and currants.

‡ Exports of currants included in raisin data in 1930 and 1931.

§ Total exports. May include 1,000 to 2,000 pounds of imported merchandise reexported.

|| Dashes indicate data not available. If any, they are included under "other countries."

Sources of data:

Annual Statement of the Trade and Shipping of the Union of South Africa, except for data on currants 1922-1928 which are from U. S. Agricultural Attaché, C. C. Taylor, Pretoria, South Africa.

the Union have increased since 1922 are other African countries, more particularly the neighboring countries of Southern and Northern Rhodesia and of the Southwest Africa Protectorate.

For several years after the War a considerable tonnage of dried wine grapes was exported from South Africa and included in the official statistics on raisin exports. Probably a large part of the exports to the United States shown in table 50 consisted of dried wine grapes rather than table raisins. It is believed that part of the apparent decline in the Union's export of raisins in recent years has been due to decreased exports of dried wine grapes.

PROSPECTS FOR THE INDUSTRY

Part of the decrease in the Union's raisin exports in recent years appears to be due to the unsatisfactory weather conditions which have prevailed during some recent harvesting and drying seasons. Moreover, the market for South African raisins of the bleached sultana type has been injured in recent years by the restriction of the sulfur content in

TABLE 51

RAISIN AND CURRANT EXPORTS FROM THE UNION OF SOUTH AFRICA TO AFRICAN COUNTRIES, 1920-1932

Calendar year	Northern and Southern Rhodesia and Southwest Africa*	Other African countries	Total
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
1920.....	116	23	139
1921.....	80	24	104
1922.....	104	23	127
1923.....	126	26	152
1924.....	141	35	176
1925.....	141	20	161
1926.....	144	26	170
1927.....	194	54	248
1928.....	216	63	279
1929.....	254	62	316
1930.....	213†	73	286
1931.....	276†	106	382
1932.....	230†	34	264

* Data for 1920-1929 are imports of South African raisins into the countries indicated.

† Estimated. See source of data below.

Sources of data:

Data for imports into Northern and Southern Rhodesia and Southwest Africa for 1920-1929 from the Department of Customs and Excise. Data for 1930-1932 from U. S. Agricultural Attaché, C. C. Taylor, Pretoria, South Africa. Data were estimated from the total exports of dried fruit reported by the Dept. of Customs and Excise at the proportion indicated by Fischer's estimates of domestic consumption. See: Federal-State Market News Service. February Dried Fruit Report for South Africa. p. 2, 3, 4. (Mimeo.) Sacramento, California.

Data on exports to other South African countries are from the Dept. of Customs and Excise, Annual Statement of the Trade and Shipping of the Union of South Africa.

sultanas to 750 parts per million in the United Kingdom market. A similar regulation (Pure Food Act) has been in force in the Union of South Africa itself since 1928. It appears to be difficult for the South African industry to produce a good bleached sultana that will meet these restrictions in sulfur content.

These handicaps make it difficult not only to exploit the opportunities of the home market, but in addition, to compete, under the present conditions of the world raisin market, with the excellent unbleached sul-

tanas available from other countries, even in those Northern Hemisphere markets where there is no sulfur dioxide restriction. The South African grower cannot offer sultana raisins of the same quality at more favorable prices than California or Turkey in foreign markets. In fact, the African markets surrounding the Union have taken increasing quantities of sultanas from the United States in recent years. This has even been true of the Union of South Africa itself.¹²⁷ One might venture the conclusion that the future of the sultana industry of the Union will probably depend largely upon British Empire preferences, a protected home market, and the development of African markets south of the Equator. If progress cannot be made in these directions, the prospect for expansion of the raisin industry is questionable.

With the great shift in demand that has taken place the world over, from seeded to seedless raisin, there appears to be no incentive for South Africa to expand Muscat raisin production and exports. The outlook for the South African currant industry, likewise, is not promising. In spite of slightly increasing exports to African countries, one can expect little, if any, expansion of the currant industry. Local consumption, for which the South African currant is mainly produced, is not likely to increase greatly and markets of the Northern Hemisphere are already glutted with currants. Greek currants offer great competition in all markets, even in the Far East. Moreover, Australia has become an additional competitor with Union currants. Thus expansion of South African exports in quantity to the best potential markets seems to be out of the question. Moreover, import data indicate that home-grown currants are not replacing imported raisins of the better quality.

Fresh-Grape Outlets.—In general it can be said that the production of fresh fruit for the markets in the Northern Hemisphere offers greater prospects of profit than expansion of the dried-fruit industry. During the last five years exports of fresh grapes to the United Kingdom have almost doubled. The South African grape arrives in London from February to May, and dominates the British market, having practically no competition during that period except from the Belgian hothouse grape. In April and May Argentine grapes come in, and in the future Chilean grapes may compete. Up to the present, however, competition from South America has not been important. It is probable that many

¹²⁷ United States exports (compiled from: Foreign Commerce and Navigation of the United States) of raisins to the Union of South Africa in pounds: 1920, 14,488; 1921, 432; 1922, 3,835; 1923, 3,997; 1924, 2,964; 1925, 4,334; 1926, 1,425; 1927, 21,857; 1928, 66,123; 1929, 116,086. Mozambique: 1925, 1,185; 1926, 0; 1927, 98; 1928, 2,226; 1929, 3,973. U. S. Consul Cecil M. P. Cross states that "it should continue to be possible to sell a few specially packed seeded and seedless raisins in South Africa so long as the existing duty on imported dried fruit is not increased."

South African viticulturists will be induced to check raisin production in favor of growing fresh table grapes and other fresh fruit for the markets of the Northern Hemisphere.

There is much land available for dried-fruit production in South Africa but the exact size of these areas is not fully known. The Union, however, needs settlers (in the case of commercial fruit growing) with a fair amount of working capital. Because of the flourishing trade in fresh grapes and also because the prospects of the raisin and currant industry are rather uncertain, no one with capital can be induced to take up raisin production on an extensive scale in the Union. For these reasons one might expect the raisin and currant production in South Africa to do no more than remain stable at about 10 to 12 million pounds annually for many years to come.

GOVERNMENT ASSISTANCE

The South African raisin industry, so far, has enjoyed but few privileges that have not been granted to other branches of agriculture. The bounty paid by the wine producers' organization to encourage the drying of raisin grapes instead of using them for wines has, of course, encouraged drying somewhat. Their Department of Agriculture, of course, lends its scientific help in improving the quality of raisins and currants produced by research and extension and every attempt is being made to place the South African product on an equality with raisins and currants from other countries.¹²⁸

The aim to improve the quality and the reputation of South African raisins has led to the enactment of the Agricultural Produce Export Act of 1917, by which official inspection of dried fruit to be exported has been established. The original act has undergone several amendments, the last of which was dated November 14, 1930. Under this Act export certificates are prescribed. The fruit must fulfill certain requirements as regards cleanliness, grading, and appearance. Packages of raisins which have been bleached must indicate this fact, and all containers must bear the words "Product of the Union of South Africa," besides indicating the registered mark of the exporter, the kind of fruit, and the grade. Within the realm of agricultural economics, legislation regarding coöperation, transportation, and credit is well provided for, but no special attempts have been made to promote the raisin industry by paying premiums or expanding production at government expense.

¹²⁸ A United States consular report of August 13, 1926, states that the government has sent a number of students to California to study methods in vogue there and has employed them on their return as experts to advise producers. It also exerts its influence in having the recommendations of these trained men carried into effect.

Some protection of the home market for raisins and currants has been granted as a result of demands presented to the government by farmers' associations, inasmuch as the import duty on all dried fruit, including raisins and currants, was raised on March 30, 1930, from 4½ cents a pound to 6 cents a pound.

THE CHILEAN RAISIN INDUSTRY¹²⁹

In any investigation of the international aspects of raisin growing, Chile must be considered, not so much because of the present size of the industry, but because of the potentialities of the industry. The industry centers in the Huasco district of the Province of Atacama and in the Elqui Valley of the Province of Coquimbo, the latter producing roughly ten times as much as the former. Insignificant quantities are also produced in the provinces of Santiago and Talca. The varieties grown are the Muscat, said to have been brought over by the Spanish conquerors, and a black grape, produced for export purposes because of its better keeping quality.

PRODUCTION TREND

Unfortunately there are no production figures prior to 1909. Moreover, those for the years since then must be accepted with reservations not only because they frequently seem to be out of line with exports, but also because identical production figures are given for a number of years. Tables 52 and 53 give the production and export statistics on Chilean raisins over a period of years. The exceptionally high export figure for 1920 is believed to be fairly correct, which makes it appear

¹²⁹ General sources used for this section in addition to those given in specific footnotes:

Bauer, Walter. Government assistance to fruit growing in Chile, 1930. 9 p. (Typed manuscript on file in the Library of the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C. and also in the Giannini Foundation Library, Berkeley, California.)

Bullock, Dillman S. The agricultural situation in Chile. 1923. (Typed manuscript on file in the Library of the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.)

[Chile] Diario Oficial, published daily. Santiago de Chile.

Chile Departamento de Agricultura. Boletín del Departamento de Agricultura, published quarterly. Santiago de Chile.

[Chile] Dirección General de los Servicios Agrícolas, Boletín de los Servicios Agrícolas, published quarterly. Santiago de Chile.

Chile. Laws, Statutes, etc. Boletín de las leyes i de las órdenes i decretos del gobierno, published monthly. Santiago de Chile.

Chilean Review, published quarterly. London.

Jones, Clarence F. South America. 798 p. H. Holt and Co., New York. 1930.

League of Nations. International Economic Conference, 1927. Memorandum on the economic, etc., situation in Chile. Geneva.

Sociedad Nacional de Agricultura, Boletín, published monthly. Santiago de Chile.

that production was greater than indicated in table 52 unless carryover was important in that year. On the basis of the meager and somewhat conflicting information available, one might hazard a guess that normal

TABLE 52
RAISIN PRODUCTION IN CHILE, 1909-1927, 1932

Year harvested	Quantity	Year harvested	Quantity
	<i>1,000 pounds</i>		<i>1,000 pounds</i>
1909.....	1,058	1919.....	527
1910.....	1,067	1920.....	527
1911.....	1,460	1921.....	1,295
1912.....	1,515	1922.....	1,295
1913.....	2,190	1923.....	1,295
1914.....	1,767	1924.....	3,802
1915.....	1,536	1925.....	3,802
1916.....	2,260	1926.....	3,802
1917.....	2,100	1927.....	1,800
1918.....	457	1932.....	1,700

Sources of data:

1909-1918: Estadística Agrícola.

1919-1927: Anuario Estadístico. Part III (Agriculture).

1932: approximate estimate based on data in Foodstuffs 'Round the World, Canned and Dried Foods 9 (52): 5. 1933.

TABLE 53
RAISIN EXPORTS FROM CHILE, 1899-1932

Calendar year	Quantity	Calendar year	Quantity	Calendar year	Quantity
	<i>1,000 pounds</i>		<i>1,000 pounds</i>		<i>1,000 pounds</i>
1899.....	519	1910.....	268	1921.....	882
1900.....	510	1911.....	184	1922.....	679
1901.....	352	1912.....	214	1923.....	876
1902.....	373	1913.....	253	1924.....	794
1903.....	568	1914.....	294	1925.....	551
1904.....	357	1915.....	730	1926.....	333
1905.....	300	1916.....	597	1927.....	446
1906.....	157	1917.....	379	1928.....	422
1907.....	206	1918.....	205	1929.....	591
1908.....	228	1919.....	792	1930.....	434
1909.....	375	1920.....	1,737	1931.....	525
				1932.....	602

Sources of data:

1899-1915: Estadística Commercial.

1916-1926: Anuario Estadístico. Part XI.

1927-1929: Estadística Anual. Part VII.

1930: Internatl. Yearbook of Agr. Statis. 1930-31.

1931-1932: Republica de Chile, Comercio Exterior, and Estadística Chilena, December issues.

production at present is in the neighborhood of 1,000 tons. Obviously, such a tonnage is unimportant as far as the international raisin situation is concerned.

TRADE POSITION

The strongest demand for Chilean raisins from abroad occurred from 1919 to 1924. This was due to the appearance of the United States as an occasional customer. The American market appeared for the first time

in Chilean export statistics in 1915, but disappeared again in 1926 (table 54). The United States trade statistics do not show any imports of raisins from Chile since that year. In 1920, however, the United States took 82.4 per cent of the total Chilean exports of raisins.

The main Chilean raisin export markets with rather stable demand are the South American countries, Peru, Bolivia, Ecuador, Argentina (in the order of their importance) and Panama. The main European market is the United Kingdom. A few thousand pounds were exported to China and Japan annually in the period 1921-1926 but none since then.

TABLE 54

RAISIN EXPORTS FROM CHILE TO THE UNITED STATES, 1915-1925

Calendar year	Quantity	Calendar year	Quantity
	<i>1,000 pounds</i>		<i>1,000 pounds</i>
1915.....	2	1921.....	508
1916.....	51	1922.....	221
1917.....	1	1923.....	145
1918.....	1	1924.....	144
1919.....	37	1925.....	65
1920.....	1,431		

Source of data:

Original source unknown, probably from Anuario Estadístico. Part XI.

FUTURE PROSPECTS

Chile is often called the California of South America. The climatic and soil conditions, especially in middle Chile, make large areas admirably suited to fruit production. Moreover, the distance to European markets via the Panama Canal is about the same as that of California. One would think that, with the gradual removal of transportation handicaps, the raisin industry would have expanded, since large areas appear to be suitable for vine cultivation. But the country has not developed this industry to the same extent as California, partly because it has not had the same rich and enormous hinterland to take its product.

On account of reverse seasons, Chile is able to supply fresh grapes to important consuming markets at times when the Northern Hemisphere is not in production. For that reason, the fresh grape is the chief competitor of raisins for the use of fruit land in Chile. The tendency towards concentrating on fresh-grape production is supported by the fact that the grape from Huasco and Elqui is seeded, although the seeds are comparatively small. The demand for loose raisins with the seeds in them is diminishing throughout the world and the demand for clusters is amply supplied largely by Spain.

If Chile, therefore, should attempt to expand the raisin industry, it logically would plant seedless varieties. In view of the thoroughly supplied world consumption of seedless varieties and the competitive struggle, which already involves all of the currant and sultana raisin-growing countries, any further expansion can hardly be recommended to a country whose raisin industry is not already on a firmly established basis. It is also doubted whether the South American countries, in which dried-fruit consumption is allegedly low on account of the abundance of fresh fruit, will increase their demand, with the possible exception of Argentina. The latter country, however, would probably prefer to foster home production than to import raisins and currants from Chile.

In general it is believed that it would pay better in Chile to plant land which could be used for raisin production with trees and vines for fresh fruit production for the winter and spring markets in the Northern Hemisphere when their supply of fresh fruits is most limited and expensive.

GOVERNMENT ASSISTANCE

A review of agricultural legislation in Chile does not reveal any special measures taken on behalf of raisin growing, and with prospects for low raisin prices normally for several years, the industry will probably not expand much without governmental assistance. The fruit-growing promotion law of November 8, 1928, provided, however, for a state-operated model plant in central Chile on a commercial scale for cleaning, grading, and packing all kinds of fresh and dried fruits. Such a packing plant equipped with machinery for stemming, grading, and packing raisins was opened by the Chilean government in 1932 in connection with its Horticulture Experiment Station at Vicuña in the Elqui Valley, near the center of the chief raisin-producing section in Chile. The plant is operated in conjunction with the coöperative Elqui-Hurtado, Ltda., an association comprising about 80 per cent of the fruit growers of that section of the country. A number of measures have been enacted in connection with this law, such as plant protection, coöperation, transportation, fruit inspection, etc., but these items have no essential bearing on the economic expansion of the raisin industry. Toward the end of 1930, the government formed a special board for the promotion of agricultural exports. It may be that this board will develop some activity on behalf of the raisin industry.

THE ARGENTINE RAISIN INDUSTRY¹³⁰

Argentina is a raisin-importing country, the average net raisin imports (1925-1929) amounting to 1,669,000 pounds annually. Raisins, however, are also grown in Argentina itself and a few are exported.¹³¹ The industry centers in the region known as the "Cuyo," which stretches along the cordillera of the Andes for a distance of about 600 miles. The two main varieties produced are both Muscats—the Moscatel blanco (white) de San Juan and the Moscatel rosado (red or rose) de Mendoza.

PRODUCTION TREND

As there are no official statistics either on raisin acreage or production, it is necessary to estimate the approximate volume of the industry. According to data given in a 1927 publication of the Buenos Aires Pacific Railroad,¹³² the following quantities of raisins are usually produced in the provinces belonging to the "Cuyo."

PRODUCTION IN THE "CUYO":	IN THOUSANDS OF POUNDS
Province of San Juan.....	3,307
Province of La Rioja }	
Province of Catamarca }	1,102
Imports into Argentina.....	1,102
Total consumption.....	5,511

In this statement, the raisin production of the Province of Mendoza, which is mainly a wine and prune-producing region, is not mentioned. The Mendoza production, because of its relatively small size, was probably included in the figure for San Juan. This same publication reports that the annual per-capita consumption of raisins in Argentina amounts

¹³⁰ General sources used for this section in addition to those given in specific footnotes:

[Argentine Republic] Boletín oficial, published daily. Buenos Aires.

Argentine Republic. Laws, Statutes, etc. Leyes Nacionales. Buenos Aires.

[Argentine Republic] Ministerio de Agricultura. Boletín, published quarterly. Buenos Aires.

Estabrook, Leon M. Agricultural survey of South America: Argentina and Paraguay. U. S. Dept. Agr. Dept. Bul. 1409:1-32. 1926.

Ferro Carril de Buenos Aires al Pacifico. Rivista mensual. Buenos Aires.

Lafond, G. La République Argentine. 96 p. Pierre Roger, Paris. 1927.

Mendoza, Argentine Republic (Province). Laws, Statutes, etc. Leyes usuales de la Provincia de Mendoza. Mendoza.

San Juan, Argentine Republic (Province). Boletín oficial de la Provincia de San Juan. San Juan.

¹³¹ Exports of raisins from Argentina during the ten years 1920-1929 averaged 100,000 pounds annually, mostly to nearby South American countries, from: Internatl. Yearbook Agr. Statis.

¹³² Ferro Carril de Buenos Aires al Pacifico. "Mas y major fruta seca nacional." ["More and better national dried fruit."] Folleto No. 15. 1927.

to about 0.5 pound. The population at that time (1926) was estimated at 10,300,000 inhabitants. At 0.5 pound per capita the present population of about 12,000,000 would consume approximately 6,000,000 pounds. Net imports during the years 1928 and 1929 were 2,257,320 pounds and 2,035,755, respectively, which would leave a difference of roughly 4,000,000 pounds to be supplied by home production.

It is believed that the above mentioned production figure, calculated by the railroad company, is approximately correct, although early preliminary estimates indicate that the 1933 raisin crop of the Province of San Juan amounted to about 5,000,000 pounds. It is also believed that any increase in total consumption, which may have been brought about by increasing population, has not been taken care of by a corresponding expansion in the home industry but by increasing imports. It must not be forgotten that Argentina produces seeded raisins almost exclusively. The increasing imports consist of seedless currants and especially sultana raisins which undoubtedly are preferred.¹³³ On the other hand, the net exports of fresh grapes from Argentina had about doubled during 1928 and 1929 in comparison with former years. Apparently it is more profitable to ship the grapes fresh than to make them into raisins.

PROSPECTS FOR EXPANSION

The raisin situation in Argentina is similar to that in Chile. Argentina also has the advantage of having seasons the reverse of those of the Northern Hemisphere but has the disadvantage of producing seeded raisins for which there is no demand. The limited population, the possibilities of producing fresh fruit for both the domestic and foreign markets, and the relatively small consumption of dried fruit in Argentina itself, are factors which stand in the way of expansion of the dried-fruit industry. Unless seedless varieties are used for raisin production, the industry cannot hope to expand. Doubtless there are a great many acres available for sultana plantations, and climate and soil conditions are extremely favorable to the development of this industry. It can hardly be assumed, however, that under present conditions in the world market for raisins and currants the cultivation of sultanas would be profitable in Argentina. The suggestion has been made that sultanas should be planted in order to replace at least the imports coming from California.

¹³³ Imports of sultanas from the United States amounted to about 750,000 pounds in 1927 (according to *Anuario del Comercio Exterior*). Exports to Argentina from the United States were 1,789,152 pounds in 1928, and 1,362,929 in 1929 (according to *Foreign Commerce and Navigation of the United States*).

The 1933 estimate of San Juan production is from: *Foodstuffs 'Round the World, Canned and Dried Foods* 9(60):5. 1933.

Whether the Argentina grower will be able to compete with the California grower on the Argentine market will depend on tariff policy, government support, and cost of production.

ASSISTANCE TO THE INDUSTRY

Three agencies actively interested in the promotion of the raisin industry are in existence in Argentina, i.e., the national government in Buenos Aires, the provincial governments, and the administration of the Buenos Aires Pacific Railroad, which is particularly interested in developing the "Cuyo" region.

Government Activities.—The national government has enacted legislation for the encouragement of agriculture, but little of significance has been done for the raisin industry. In 1919, a National Mortgage Bank was created, which is empowered to make loans on vineyards up to 50 per cent of their value. In case of losses of fruit or plants and of diseases attacking the plantation, amounting to more than 30 per cent of the crop or acreage, this bank can compel the owner to replant immediately. In 1922 and 1924 an inspection of products to be exported was established. This was combined in 1923 with the obligation to apply a national trade-mark called "Industria Argentina." This is still without significance to the raisin trade since very few raisins are exported. A customs law of 1923 exempts fertilizers, machinery, and live plants from import duties. Another law grants credits to the national government for the purchase of plants with a view to encouraging agriculture. In 1926 the National Bank of Argentina was authorized to make loans to coöperative societies for the acquisition of land and the construction of establishments for the industrialization of home-grown produce. Nothing is known concerning the extent to which these financial facilities have been utilized by the raisin growers. A new plant-protection service was established in 1926 for all fruit-growing regions. In 1927 a special office for the regulation, inspection, and encouragement of coöperatives was created. In regard to the provincial governments, there is no information to indicate that anything has been done by special legislative measures.

Buenos Aires Pacific Railroad Activities.—The administration of the Buenos Aires Pacific Railroad, on the other hand, has been encouraging the development of the sultana raisin industry and has been laying great stress upon the necessity of using machinery of the kind employed in California for the processing of raisins. It has established two experiment stations and an extension service to give advice on all phases of raisin and currant production and the use of machinery. This railroad

has also been trying to bring about concerted action between producers, merchants, and the governments in order to promote the dried-fruit industry. Among other things, it advocates the establishment of a protective tariff during the period needed by the industry to develop to the desired size. Moreover, it maintains that the provincial governments should adopt the following measures: (1) grant special privileges to dried-fruit producers, and exempt them from taxes for five years; (2) introduce machinery for processing, and conduct demonstrations; (3) build up an adequate and intelligent extension service.

If the national government adopts a paternalistic attitude toward the raisin industry, by means of high protective tariffs, and if the provincial governments carry on a promotion scheme, imports could be curtailed and consumption of Argentine raisins presumably expanded somewhat.

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¹³⁴ References in this list are in addition to those dealing with individual countries only which have been referred to in footnotes and tables.

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